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FROM

THE SUPPLEMENTS TO THE CALCUTTA GAZETTES,

1871-74.



Calcutta:

PRINTED AT THE BENGAL SECRETARIAT PRESS.

1874.

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THE EPIDEMIC FEVER.

**The epidemic fever in Burdwan, Hooghly, Beerbhoom,
and Midnapore 1871-73.**

FEVER IN BURDWAN AND HOOGHLY.

Fort William, the 9th January 1872.

RESOLUTION—By the Government of Bengal.

READ—

A letter No. XT, dated 11th December last, with enclosures, from the Commissioner of Burdwan, and orders thereon, Nos. 4131-34, dated 14th idem.

Letter No. 960, dated 27th December, with enclosures, from the Inspector-General of Hospitals.

Endorsement No. 383, dated 28th December, with enclosures, from Commissioner of Burdwan, and orders thereon, No. 4360 dated, 30th December 1871.

Letter No. 363, dated 14th December, with enclosure, from the Commissioner of Burdwan, with orders thereon, No. 4236, dated 19th idem.

Letter No. 394, dated 30th December, from Commissioner of Burdwan with enclosure.

Letter No. 394, dated 30th December from Officiating Sanitary Commissioner. All having reference to the fever now prevailing in the district of Burdwan and Hooghly.

1. The fever, which has for more than ten years past been raging in the districts on both sides of the Hooghly, has, during the past three seasons, chiefly shown itself in Burdwan and Hooghly.

2. In 1869 it broke out with great violence in the town of Burdwan, and afterwards at different places in both districts. The number of persons attacked was very large, and the mortality lamentably heavy. The Government was, by the liberality of the Maharajah of Burdwan, fortunately put in a position to deal with the outbreak promptly and vigorously so far as medical and food relief were concerned; but the disease was not got under until the early part of 1870, when it left the people exhausted and worn out in body and means.

3. The fever did not again show itself with anything like the same virulence until July 1871, when it once more broke out within the municipal limits of the town of Burdwan.

Native doctors with medicines were promptly placed at the disposal of the municipality, but the disease went on spreading within the town, and additional medical assistance had soon to be afforded, and food depôts established for the relief of the sick, as the majority of those attacked were so debilitated by the fever of previous years, that they broke down at once under the attack, and were too poor to procure assistance and food for themselves. The cost of these measures was met from the balance of the gift of the Maharajah of Burdwan.

4. As on the last occasion, the fever gradually extended from the town to the district, and also again made its appearance in Hooghly. The necessity of more extensive measures of relief became only too evident. The Maharajah of Burdwan, with that feeling for the suffering of the people and appreciation of his duty that have always marked His Highness' conduct, placed in the Lieutenant-Governor's hand a further sum of Rs. 25,000, making Rs. 50,000 in all contributed by him for the relief of the fever-stricken population. With the means thus placed at his disposal, the Lieutenant-Governor has up to the present been able to comply with all the requisitions of the local officers, both for native doctors and medicines and for the purchase of food and clothing.

5. In Burdwan no less than nine special dispensaries have been established (four in the town and five in the district), while a European* medical officer and twenty-two sub-assistant surgeons and native doctors have been despatched to the aid of the civil surgeon, and are now doing what they can to relieve the people and check the disease.

6. In Hooghly one sub-assistant surgeon and nine native doctors are employed in the interior of the districts, but happily the disease has not this year been so general or so fatal here as in Burdwan, and it is now believed to be dying out. Money has also been placed at the disposal of the native doctors in the interior of both districts for the purchase of food, clothing, and medical comforts where these are really required.

7. Under the orders of Government, the late Officiating Sanitary Commissioner, Dr. Payne, has recently visited Hooghly and Burdwan, and his report, which has just been received, will be found among the papers referred to in the heading of this Resolution. Dr. Payne insists, as others before him have insisted, on the bad effects of the silting up

* Dr. Robinson.

of the natural drainage channels of the district. His report will be communicated to the Department of Public Works with reference to the correspondence in that Department in connection with Act V (B.C.) of 1871, the Hooghly and Burdwan Drainage Act. Dr. Jackson, the present Officiating Sanitary Commissioner, has also been instructed to proceed at once to Burdwan, and to remain there for the present, affording the local officers all the assistance he can in administering relief to the sick and checking the disease. He has been told to submit a fortnightly report of his proceedings for the information of Government.

8. This is what the Government in this Department has hitherto done to meet the calamity. The papers now before the Lieutenant-Governor show, however, that the disease is still increasing in Burdwan; that the people are dying by hundreds; and that what has been done is unhappily all too inadequate to the necessities of the case. It is now represented that ninety or a hundred more native doctors, with three European medical officers to superintend them, would barely suffice to cope with the disease; and that food, stimulants, and warm clothing, must be given largely. The Medical Department finds it utterly impossible to provide native doctors in anything like these numbers, and it is more than doubtful whether the money still available from the gift of the Maharajah of Burdwan will suffice for even a part of the expense that must be incurred before efficient help can be given to the sufferers.

9. The Inspector-General of Hospitals will now be directed to despatch at once to Burdwan all the sub-assistant surgeons and native doctors that can be spared from Calcutta or elsewhere; also any compounders that may be found specially qualified to act as native doctors. It is probable that some native doctors might be made available for the time from those stations where there is a second native doctor or sub-assistant surgeon who could in the present emergency take up the duties of both, and the Inspector-General should make immediate enquiries in this direction. It must be clearly understood that all medical aid which the Inspector-General can make available is to be despatched to Burdwan. Medicines must also be supplied without stint.

10. An application will be made to the Government of India for permission to employ, as special assistants to the Civil Surgeon of Burdwan, any European medical officers who may be from time to time temporarily attached to the General Hospital.

11. The instructions that have been issued by the Commissioner to the Magistrate of Burdwan, to spare no expense in distributing food, stimulants, and clothing to the necessitous sick and convalescent, and to keep the native doctors supplied with money to provide petty comforts required by pauper patients, are approved; but care should be taken that the persons so relieved are really indigent and quite unable to help themselves. It will require careful superintendence to avoid permanently pauperising the district by excess of charity when the necessity for it has passed away. The Lieutenant-Governor begs that an efficient organization may be set on foot; and the Commissioner is at liberty to employ all the local agency at his disposal, including the subordinate officers of police, in carrying out the views of Government in this direction. Any further assistance in the way of civil officers to superintend such measures as the Commissioner may represent to be necessary, will meet with immediate attention.

12. As remarked above, it is not probable that the money now at the disposal of Government will suffice for the demands likely to be made on it; so long, however, as it lasts, it will be spent freely; but every effort should be made by the Commissioner and the local authorities to rouse the wealthy zemindars and native gentlemen of Burdwan to follow the noble example set them by the Maharajah, in contributing to the relief of the poor of the districts, pointing out to them that if they now fail in their duty in this respect, it may become a question for early consideration whether Government is not bound to legislate to compel the wealthy inhabitants of a district to support their local poor.

13. The Lieutenant-Governor thinks that in an extreme case like the present, where the people of a large and populous district are suffering so severely from sickness and from want, the circumstances justify an appeal to the sympathy and aid of the general public, and to this end His Honor desires that this Resolution and the connected papers be published in the *Calcutta Gazette*, and that copies be furnished to the public press. The Commissioner should also do all in his power to make widely known the sickness and distress now existing in Burdwan, and should invite contributions by advertising the need of them in the English and native papers. An application will at the same time be made to the Governor-General in Council to supplement private liberality, in case of need, by a grant of money from the treasury of the State.

FEVER IN BURDWAN 1871.

No. XT, dated Burdwan, the 11th December 1871.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,

To—The Secretary to the Government of Bengal, Judicial Department.

I HAVE the honor to submit, for the information of the Lieutenant-Governor, a letter (in original) No. 188 of 9th instant, from the Magistrate of Burdwan, forwarding copy of a report from the civil surgeon of the district, regarding the fever which is raging in the district of Burdwan.

2. It will be seen that the Magistrate of Burdwan applies for the services of six native doctors, which is one more than Dr. Elliot has asked for; but I think that it will be better to send six men than five, with a compounder for each of the six men.

3. There are already nine special dispensaries open in the district of Burdwan for the relief of the sufferers from fever. Four of these are within municipal limits, and are maintained chiefly from the municipality funds. The other five dispensaries are in the interior of the district.

4. There has been a sudden and fresh violent outburst of fever, particularly in thanas Royna and Khundghose, which are on the south bank of the Damoodur; and on the other hand, the fever has been very violent in the north of the district, towards Munglecote; whilst the civil surgeon now states that three-fourths of the people in the Bood-Bood sub-division are suffering from fever. The accounts brought in by Sub-Assistant Surgeon, Baboo Deenobundho Dutt, after a tour in thanas Royna and Khundghose, are very deplorable, and show the necessity for immediate measures of relief.

5. The civil surgeon recommends that a civil officer should go and ascertain what the real state of things is, and Mr. Metcalfe has gone out himself to make enquiries. Considering how much Mr. Metcalfe has suffered from the fever, I could have wished that he should have spared himself this exposure. Dr. Elliot, the Civil Surgeon, has also been at death's door from the fever, and I have desired him not to go out, especially as there is more than enough to occupy him at the station.

6. What is really wanted, and what I now most urgently ask for, is the deputation of another English medical officer to the assistance of the civil surgeon. When the fever first broke out in 1869, an additional English medical officer was sent up at my request, and the urgency of the case is greater now than it then was. Then the fever was confined to the town: now it is all over the district. The superintendence of a medical officer moving about the interior of the district will double the value of the services of the native doctors. With the additional English officer, at least one good sub-assistant surgeon (two would be better) should be sent to accompany him in his visits in the interior, and to be employed at his discretion. Whatever travelling allowances and contingent expenditure and personal allowances are needed, can be charged to the Burdwan Epidemic Fever Fund, of

which the funds are ample. What is needed is immediate relief. There should be ample supplies of quinine, rum, and even clothing, where necessary. There is fortunately plenty of money, owing to the generosity of the Rajah of Burdwan; and at the same time, the only thing that can be done is to send medical aid of the best description with the least possible delay to the sufferers, who may thus be rescued from death.

No. 188P, dated Burdwan, the 9th December 1871

From C. T. METCALFE, Esq., Magistrate of Burdwan,

To—The Commissioner of the Burdwan Division.

I HAVE the honor to forward for your information, in original, a letter received from the Civil Surgeon, being copy of one addressed to the Deputy Inspector-General of Hospitals.

This fever has for some time past been increasing in severity, and reports have from time to time been forwarded to your office.

I had hoped, and indeed been led to expect, that with the approach of the drier weather much of the severity of the disease would have abated. This hope has not been realized, and it now becomes necessary again to ask for the services of other native doctors. The medical aid which we had received was distributed in the localities where fever was

* At Mohachanda.

" Akloky.

" Munglecote—notice sent from Cutwa.

" Mahadab.

* " Serane Ticcar.

" Ausgram.

then most prevalent,* and the services of Sub-Assistant Surgeon, Deenobundho Dutt were specially retained with a view to his being employed in visiting out-dispensaries and supervising the native doctors. Sub-Assistant Surgeon, Deenobundho Dutt, has just returned from visiting Akloky and some of the neighbouring villages. His account is very deplorable. It would appear that, with the exception of a few villages here and there, the whole of South Burdwan is prostrated by fever, many of the people being unable to walk to the nearest dispensary for the purpose of obtaining medicine. At Akloky itself acute fever seems to have abated, but from weakness the people have become utterly prostrated. I am proceeding day after to-morrow to visit and personally inspect the fever-stricken villages. In the meantime I, in consultation with Dr. Elliot, would urgently indent for the services of six native doctors:—

One for employment in Roynah.

Ditto ditto Indass.

Ditto ditto Khundghose.

Ditto ditto Selimabad.

Ditto ditto near Sahubgunge.

Ditto ditto for dispensary to be opened at Diggulgram, north-west of Akloky.

This indent, which is asking for one more doctor than the Civil Surgeon refers to, may be regarded as preliminary to such further aid as my visit may suggest.

In the 7th paragraph of Dr. Elliot's letter a suggestion is made that the present state of sickness in this district is sufficient to authorize the special organization of an efficient medical staff under a European medical officer with dispensaries in villages a few miles apart.

The severity and continuance of the present endemic disease appear certainly to call for some additional measures to bring relief to the unfortunate residents of the afflicted parts. I should add that Dr. Elliot accompanies me on my visit.

No. 453, dated Burdwan, the 8th December 1871.

From T. ELLIOT, Esq., M.D., Civil Surgeon of Burdwan,

To—The Deputy Inspector-General of Hospitals, Presidency Circle, Calcutta.

I HAVE the honor to inform you that the progress of fever has somewhat abated in the town and suburbs of Burdwan since the setting in of the cold weather. Cases of new fever are less frequently met with, but relapses are the rule; and a very large proportion of the population, both in the town and fever stricken districts, are suffering from the usual sequelæ of this type of fever, which are perhaps more harassing than the disease itself. Enlargement of the liver and spleen, dysentery, diarrhoea, and œdema of the legs and feet, are most frequently met with. In most of such cases the fatal result is only a matter of time. The same state of things obtains in a great many villages in the district of Burdwan. In some places there is a good deal of what is called "new fever" of a virulent type; congestion of the brain, liver, and spleen being the prominent complications. At Mahachanda, a village about seven miles north of this station, this type of fever prevails, and the mortality is great. A native doctor was deputed there on 20th November last. The reports I have received regarding his work are on the whole favorable.

2. At Mahata and Ausgram, in sub-division Bood-bood, about three-fourths of the population are said to be suffering, and other villages in the same quarter are reported on reliable authority to be in the same condition.

3. In South Burdwan, including the thanas of Roynah and Khundghose, fever is perhaps most generally prevalent. The inspecting Sub-Assistant Surgeon returned from Akloky a few days ago, and reports that with few exceptions the villagers in South Burdwan are utterly prostrated by fever. Their condition is lamentable in the extreme. In many instances the people are too ill, or too weak from recent illness, to visit the nearest dispensary. The majority of them therefore are either without medical aid altogether, or are left to the tender mercies of ignorant and unqualified practitioners, who extract money from them and do no good.

4. At Munglecote and other villages in sub-division Cutwa there is great sickness and distress. A native doctor was deputed there some time ago from Cutwa, and supplies of medicine have been sent both from Calcutta and Burdwan, so that the stock in hand should be sufficient to meet all demands. No returns of any kind have been received from him.

5. There are at present nine dispensaries in the district specially for the treatment of endemic fever: four within municipal limits and five in the interior. One, at Akloky, is in charge of a Sub-Assistant Surgeon; the others are in the hands of native doctors. The inspecting Sub-Assistant Surgeon reports favorably with regard to the working of most

of them, and I am able to confirm his reports with reference to those in the vicinity of Burdwan. The daily average attendance varies from 80 to 200 or upwards. The services of the itinerant native doctors were dispensed with on 20th November last, and a permanent dispensary opened at Katrapatta, a village within municipal limits, in which, from personal inspection, I found great sickness, and great poverty in consequence.

6. There are three dépôts for the distribution of food, all within the municipality, which are working favorably, and are of service to the poor of the immediate neighbourhood in which they are located.

7. Owing to prostration from long and severe sickness, the great mass of the village population in the district are unable to obtain proper medical relief; and if they could obtain it, the result is often not satisfactory, which depresses and disheartens them. On the other hand, native doctors, if forced to visit from village to village, invariably fall ill, so that their services are much impeded or altogether lost.

For these reasons the benefit derived from dispensaries is only felt within a limited circle. To do any real good to the community of a fever-stricken district like Burdwan, it will be necessary to establish a dispensary in every second or third village from four to six miles apart. For this purpose an efficient and well-organized medical staff will be required, and the supply of quinine and a few other European medicines will have to be on a liberal scale.

In the first instance it is necessary to ascertain with accuracy, and on reliable authority, what the real state of things is in the interior, and this can best be done by deputing a civil officer to visit the localities in which fever is said to be most virulent. On his reports the medical authorities will take action and provide an efficient native staff, to be under the rigorous and constant supervision either of an English medical officer, or of a Sub-Assistant Surgeon of standing and experience.

8. Meanwhile the services of two *native doctors* are required for employment in villages in thana Roynah, and two others should be deputed to Indass and Khundghose—so posted that villages on both thanas may benefit. Another native doctor is required for the villages near Mahata, in which much sickness is reported. An inspecting Sub-Assistant Surgeon of experience should superintend in that part of the district, and locate the native doctors where their services are most required. In the absence of precise information, I am unable to say what is required in other parts of the district. I think it probable that medical aid is required in thana Selimabad.

9. In addition to medicines, I am of opinion that rum and other stimulants should be administered to those advanced in disease. Clothing in some instances I believe to be necessary. Without a large and efficient staff, it will be impossible to carry out those measures so as to be of service where they are really required.

The present dépôt for endemic medical stores is in the jail hospitals; the medicines are under the care of the jail native doctor. This arrangement does not suit, as the jail duties are being neglected owing to constant heavy demands for medicines from various parts of the district. Much of my own time is passed in general superintendence, which should be otherwise spent in visiting sub-divisions, &c.

It will be necessary to place the stores under the care of a special native doctor or other responsible person, who will superintend their distribution, packing, and despatch to the various dispensaries. Should this arrangement be considered unadvisable, I beg to recommend that medical stores be supplied to native doctors on indent direct from the depôt, as I am unable to carry on the duties efficiently with the present staff.

No. 4131, dated Fort William, the 14th December 1871.

From—A. MACKENZIE, Esq., Junior Secretary to the Government of Bengal,

To—The Commissioner of the Burdwan Division.

I AM directed to acknowledge the receipt of your letter No. XT, dated the 11th instant, and enclosures, and in reply to inform you that the Lieutenant-Governor sanctions the employment of six native doctors and six compounders in the district of Burdwan for the purpose of affording medical relief to the sick suffering from fever in that district. The Inspector-General of Hospitals, Indian Medical Department, will be instructed to send at once these medical subordinates with a sufficient supply of suitable medicines and medical comforts, including rum. Dr. Brown will also be instructed to depute at once two qualified sub-assistant surgeons to help the Inspecting Civil Surgeon. The services of Assistant Surgeon, Thomas Robinson, have already been applied for, and that officer has been directed to proceed at once to Burdwan and act under the orders of the Civil Surgeon, Dr. Elliot. His Honor also sanctions the purchase of clothing, or such other articles as may be absolutely necessary in affording relief to the sufferers.

2. With the exception of Dr. Robinson's salary, which will be borne by Government, all expenses in the shape of salary and personal allowances, travelling and contingent expenses, incurred by these medical officers and subordinates, cost of medicines, purchase of medical comforts, clothing, &c., will be met from the Burdwan Epidemic Relief Fund.

3. I am to add that Dr. Payne, the Acting Sanitary Commissioner, will shortly visit the affected tracts.

No. 960, dated Fort William, the 27th December 1871.

From—Dr. J. C. BROWS, Inspr.-Genl. of Hospitals, Indian Medical Dept.,

To—The Secy. to the Govt. of Bengal, in the Judicial Department.

I HAVE the honor to submit, for the information and orders of

Copy of a report, dated 24th December 1871, on the present state of the Burdwan district, by Deputy Inspector-General of Hospitals, G. Saunders.

Copies of memorandum No. 3501, dated 25th December 1871, from Dr. Saunders, and enclosures.

His Honor the Lieutenant-Governor of Bengal, the documents marginally enumerated, concerning the serious outbreak of fever at present prevailing in the zillah of Burdwan.

2. I desire more particularly to solicit the orders of Government as to whether medical aid is to be

supplied to Burdwan in addition to what has already been done in this direction.

3. The report of the Deputy Inspector-General shows to what extent the emergency has been met, and impresses a conviction that any additional efforts which it is possible for the Medical Department to make will fall very far short of the necessities of the case.

4. The Civil Surgeon's demand for three medical officers and ninety native doctors is entirely beyond my powers. All the circles of medical superintendence in the presidency have been drained of supernumerary native doctors for this emergency, as well as for the Lushai expedition, and now none are available. Several men have been specially entertained for duty in Burdwan, and the only expedient which I can now suggest is temporarily withdrawing compounders from the dispensaries of neighbouring zillahs. This will incommode these dispensaries, and the men so obtained will be of comparatively small use.

5. There are also at the Medical College Hospital six supernumerary sub-assistant surgeons whose services might be made available, but it is found that these subordinates are not so useful as native doctors.

6. If the Government desire it, I shall continue to send all the medical aid which I can command to Burdwan, and report from time to time the extent to which I am able to do so.

7. All the authorities agree in urging the importance of distributing food and the clothing to the sufferers, and I entirely concur in the necessity of providing these important aids to medical relief. Indeed, I consider them quite as essential in the treatment of the sick as medicine.

Fort William, Deputy Inspector-General's Office, 24th December 1871.

ON account of the increase of sickness in this zillah during the past and present month, I again visited Burdwan on the 20th December to make necessary enquiries into the disposition of the subordinate medical officers now at work there, and to make myself informed generally of the state of public health in the district, as indicated by recent reports to my office from the Civil Surgeon.

As far as I could ascertain, there has been a very considerable increase of sickness in the district generally, during November and the present month; and if the police and other reports which I have made myself acquainted with be at all reliable, then a large section of the population throughout the district is prostrated with fever, and of these large numbers die.

Dr. Elliot has visited many parts of the zillah, and so has Sub-Assistant Surgeon Deenobundho Dutt, and the foregoing estimation of the extent and spread of the disease is in harmony with their ideas and the experience which they have gained.

I had a long conversation with the Magistrate yesterday; and as the Officiating Sanitary Commissioner was here also, I discussed the question with these gentlemen, with a view to ascertain if any, and what measures could be resorted to under the emergency to meet the demands which this exceptional state of affairs necessarily makes on our attention and our capabilities.

I have perused a copy of a letter which Dr Elliot has forwarded to my office, but which had not reached me when I left Calcutta (annexed hereto); and after all I have seen and heard, and after perusing the police reports that came in whilst I was there, I am of opinion that if it is desired by Government to give as efficient aid to all the zillah populations who are now suffering from this fever as where we have medical subordinates at work, then 100 native doctors, with six sub-assistant surgeons of experience as inspecting officers, should be distributed over the district at once.

To give an idea of the fatality which attends these fever cases, I will state what came under my observation on the 21st at the village of Mahachanda, distant about eight miles from the civil station. A large crowd were present, attending the dispensary which has been established there, and amongst these were some of the more wealthy inhabitants of the village, and these positively assured me that out of a population of about 600 persons living in Mahachanda, 100 had died of fever since October, and chiefly during November and December.

As a rule, it is the poorer section of the village communities who suffer most severely and die, for wherever the previous condition of the individual has been one associated with great distress or even privation, the incidence of the fever is exceptionally severe, and once prostrated by disease, he never rallies unless food and clothing, in association with medical relief, be at hand.

It is for this reason that no effectual system of treatment can be pursued that is not supported by liberal donations of food and clothing to all those who are now suffering so severely from disease in this zillah, and thus the matter becomes a very serious one both in an administrative sense and financially.

A letter is now before me from Sub-Assistant Surgeon C. N. Biswas, dated Cutwa, 11th December, in which he says the people "have been debilitated a great deal from repeated attacks; they are almost reduced to skeletons; the poor class are suffering much, and this is owing to insufficiency of food and want of clothes. The well-fed, well-lodged, and well-cared for, have suffered very little; the mortality was amongst the poor class; and many are suffering from congestion of the spleen and liver, from repeated attacks of fever, owing to their depraved condition and extreme prostration of strength." Again, "some arrangements are absolutely necessary for feeding the poor and helpless people, without which medicines will be of no effect."

This officer has himself been very ill, and I am about to relieve him from his charge.

The foregoing description is a fair average account of the condition and utter prostration of a large section of many of these village communities, and I agree with the Sub-Assistant Surgeon that no amount of medicine will stay the hand of death with these poor people unless food and clothing be liberally distributed, and that, too, through a large extent of the thanas in this district.

In 1868-69 the scenes witnessed in and around Burdwan city can never be forgotten by those who witnessed them. I believe that every individual of the poor Hindoo communities and castes, and all the poorer Mahomedans, suffered at that time from the disease, and that

great numbers died at the time. Those who partially recovered suffered again in 1869-70, and of these a proportion only died, as food relief went hand in hand with the medical officer's assistance. Those who benefited by such relief have, however, been again attacked this year, having been rendered doubly liable to the invasion of disease by a debilitated condition, resulting from previous attacks, and these only will live on so long as they are watched and fed and clad during the sickly season.

The poor creatures attending the dispensaries crowded round me yesterday, begging in most earnest terms for clothing of some kind and for blankets. The municipality of Burdwan are procuring blankets, and distributing them; but this should have been done a month ago, and must be continued year by year, as long as the poverty of the people is such as to predispose them to suffer in an exceptional manner from the exciting causes of this disease.

I need not here allude to the views which I have held on the nature and origin of these fevers in Burdwan district, as they are fully detailed in the reports which I have submitted to the Inspector-General's office. I may, however, briefly state that the disease itself, the circumstances under which it arises, and the conditions under which we find it existing, are, I believe, precisely those which I have so carefully detailed in my reports. The mortality which attends the advent and progress of the malady is dependant also on those faulty hygienic states which are invariably associated with the poor in all countries, and which are here intensified by indifferent habits and modes of life in a climate which is especially trying to them at certain seasons of the year.

Mr. Metcalfe thinks two native doctors, with three medical officers to control them and direct and supervise their efforts, are absolutely needful; and these are at work in the different villages and thanas detailed in the annexed disposition return. Assistant Surgeon Robinson takes the Mungleote circle, and will proceed from post to post, inspecting the dispensaries located there and advising the native doctors as to modes of treatment and duties: Sub-Assistant Surgeon Deenobundho Dutt takes the Burdwan circle, and inspects the different dispensaries located within this part of the district; whilst Tara Prosumno Roy, who has just been relieved of duty at Satkhira, will inspect and advise in the dispensaries located in the Roynah circle.

At the request of the Magistrate, and on my recommendation, a native doctor will be attached to the Civil Surgeon at the station, to take charge of all supplies of medicines which arrive from Calcutta, and to distribute these to the native doctors at work in the district, keeping all accounts of the same, and submitting these to the Civil Surgeon as required.

The food relief measures are initiated and carried out by the Magistrate under orders received from the Commissioner, but I have expressed to the former my opinion that it is absolutely necessary to feed and clothe the poor wherever medical relief is given, for without it no measure of success is likely to attend our efforts to check the heavy mortality, and I have impressed on the Civil Surgeon the necessity of bearing these matters in mind.

I have, since writing the above, had a conversation with the Magistrate in reference to the distribution of disease in the Burdwan zillah, and he believes with me that 100 native doctors may be usefully

employed here; but as that is in every sense impossible now, he thinks that something may be done to utilize the services of native compounders who live about in the villages through the zillah, and who, he thinks, might be looked after by inspecting medical officers. I confess I do not see my way sufficiently clear in this matter, so as to help the people in the present emergency, and I do not therefore recommend it for adoption. The fever is of a nature to require some skill in its treatment in the early stages, and this can only be done by educated subordinate officers.

Dr. Elliot has asked for a second medical officer to take up and relieve him of the duty of collecting and checking the returns which must be prepared at the different dispensaries now at work; and it is certain that with his work as Civil Surgeon, he has little leisure for such occupation. But I am afraid that the Inspector-General will scarcely sanction this addition to the zillah staff; and if a second medical officer could be spared, I think he should be deputed to the district to inspect and look after the dispensaries in the Roynah circle, in place of the Sakhira Sub-Assistant Surgeon.

I took the opportunity, whilst at Burdwan, of visiting the sudder dispensary. It is in charge of Bepin Beharry Dhole, a young Sub-Assistant Surgeon, who is temporarily attached to it whilst Deenobundho is inspecting the epidemic dispensaries. This lad is clever and willing, trying to do his best, and does that fairly well; but he has not been careful enough to keep his pilgrim patients from defiling the floors of the hospital. Poor creatures, suffering from scorbutic diarrhoea and dysentery, will not get up on a cold morning to visit the latrine unless they are looked carefully to, and in this case the result was the presence again in this hospital of that filthy fecal smell which was one of the chief causes of its unpopularity two years ago. I directed the Civil Surgeon to supply himself with carbolic acid and McDougal's powder, so as to purify the wards and to enable him to keep them in a more cleanly state in future.

I visited the jail also, and found, out of a strength of 241 prisoners, 53 in hospital suffering from intermittent fever and enlarged spleen, and 40 on the convalescent list. There was not a single healthy man in the jail in my estimation; and making every allowance for the prevalence of fever, I think the condition of these prisoners indicates something wrong in the Burdwan jail economics. Dr. Elliot has some suspicions also, and will keep a watchful eye on the jailor's proceedings in future. It is certain that the men were all in fair condition on the 9th ultimo, and it is scarcely possible that fever alone could have produced such an unfavorable condition as that noticed by me in men well housed and fed on the jail scale, if all had been as it should have been during Dr. Elliot's absence from the station. Dr. Elliot has complained very much of the native doctor's conduct during his absence.

I solicit the Inspector-General's approval of what I have done in the distribution of the native doctors, and in allotting certain duties of supervision to the superintending medical officers at work at Burdwan.

I saw Mr. Buckland this morning,* and he had perused a copy of

* 23-12-71

Dr. Elliot's letter of the 18th instant to my address. The Commissioner is of opinion that more native doctors should be sent, and I would back

the application most strongly, if I had men to send; but I can only now calculate on three sub-divisional native doctors in addition to those at present at Burdwan, and I must await definite orders on this subject.

G. SAUNDERS,

Deputy Inspector-General of Hospitals.

No. 492, dated Burdwan, the 18th December 1871.

From—DR. J. ELLIOT, Civil Surgeon of Burdwan,

To—The Deputy Inspector-General of Hospitals, Presidency Circle, Calcutta.

IN continuation of my No. 453, dated 8th instant, I have the honor to inform you that since the submission of last report there has been no abatement of fever either in town or district. New cases prevail in villages lying to the north-west of the district, in sub-division Bood-bood. Reports regarding it from all quarters are so general, that it would be difficult to say where the disease is not. The same type of fever prevails throughout, with urgent congestive complications at first, and enlargement of spleen and liver afterwards.

On the 12th instant I proceeded to Chukdighee, fifteen miles south of Mymaree station, thana Selimabad.

On the 13th I visited the villages as per margin on the western bank of the river Damoodur. After minute inspection, having visited from house to house, I saw upwards of 300 people, all sick, in different stages of the disease. Many were prostrated by fever, others were in great debility and poverty, eking out a miserable existence without proper nourishment, covering from cold, or care of any kind. In one village I only found two people who had not suffered from fever. The mortality has been, and is still, very great. I have deputed a native doctor with medicines to the spot.

Fole Sicerampore.
Sree Kistopore.
Raja Raupore, &c.

The zemindar* promised me in writing Rs. 150 for the purchase of quinine for the good of his village.

The money is to be paid to the Magistrate, on receipt of which I shall send a large supply of quinine from the Government stores for sale in the district. The native doctor has orders to take a supply of rum, sago, and other necessaries, and will supply milk, &c, to the destitute. Funds have been placed in his hands for this purpose by order of the Commissioner of the Division.

On the 14th I visited Targram and a number of villages to the south of Chukdighee, in company with the Magistrate; about two-thirds of the population are said to have died—I should take one-half to be a nearer calculation. Few children had been born since the disease commenced.

People complained bitterly of the treatment they received at the Chukdighee dispensary.

The Sub-Assistant Surgeon is lazy, trusts to his compounders, who purchase and expend, at the zemindar's expense, enormous quantities of European medicines, and do no good. They are both in extensive private practice. Steps have been taken to put a stop to this, with the concurrence of the zemindar, who spares no expense.

The Sub-Assistant Surgeon should be removed, and a better man sent. Copy of my remarks on visiting the dispensary shall be submitted as soon as received.

There are now 15 dispensaries for the treatment of endemic fever in town and district, besides the Government institutions at sudder station and sub-divisions, also Maharajah's dispensary in the city. One hundred more would not be sufficient, if it is really the intention of Government to attempt to cope with the disease. Three European medical officers of experience, with 30 native doctors each, all working hard, might afford perceptible relief, but the present staff is a mere drop in the ocean—the good they do does not extend beyond the villages in which they labour. Zemindars should be roused into action, money should be collected from them, and medicines purchased for the poor. I believe that many zemindars would contribute willingly if personally spoken to on the subject. Food-reliefs should be established when required, under proper supervision, on a scale sufficient to meet the emergency. Sub-Assistant Surgeons passing their time in idleness, while thousands are dying all round them, should be punished and dismissed, and the working men encouraged. The whole scheme should be entered into vigorously and systematically, with a large and efficient staff working under the orders of a committee, one member of which should be a medical officer who has local knowledge of the district.

The temptation offered to native doctors on small salaries, by placing funds in their hands to purchase food, will prove too great for most of them, and no benefit will result, for the food will never reach the poor for whom it is intended.

The native medical officers in charge of dispensaries in towns and suburbs are working hard and doing real good. I may say the same of most of the others who are within reach.

The Sub-Assistant Surgeon at Akloky has a small daily average, though sickness is great in his neighbourhood. He is unable to submit returns. Of the two Sub-Assistant Surgeons lately sent, one arrived with fever and is still sick. The other is a fever subject, has attacks about three times in a month, and is debilitated in consequence.

The food-depôts are working well, and more should be established.

No. 383, dated Burdwan, the 28th December 1871.

Memorandum by—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division.

COPY of Burdwan Magistrate's letter No. 198P of the 16th instant, together with this office reply, No. 366, dated 21st idem, forwarded to the Secretary to the Government of Bengal for information.

No. 198P, dated Camp Roynah, the 16th December 1871.

From—C. T. METCALFE, Esq., Magistrate of Burdwan,

To—The Commissioner of the Burdwan Division.

I HAVE the honor to report for your information that on the 13th instant I arrived at Selimahad village, with a view to enquiring regarding the violence of the epidemic fever along the banks of the Damoodur and the villages within thana Roynah.

2. I found that the fever had visited with severity the villages of Moshagari, Solda, Ajapore, Bainan—both Chotto and Baro—and Nursingpore, but the violence had passed after lasting three years, leaving an emaciated and unhealthy population with spleen disease and other sequelæ of fever. There are still daily deaths, but the people seemed more hopeful of the coming year, whilst lamenting the depopulated state of their villages.

3. At Selimabad there has been heavy mortality; houses have been abandoned. The village is one of the dirtiest in the district, and the supply of drinking water abominable. Immediately behind the thana there is an old badshahce tank, the property of Government, filled with rubbish and weeds, and surrounded by jungle.

4. I would ask your sanction to an expenditure of Rs. 500 from savings of the ferry fund for its restoration. The sale of timber on its banks will fetch about Rs. 60, and fisheries, when cleaned, at least Rs. 10 per annum. On remonstrating with the villagers on their defective drinking-supply, they begged that this particular tank might be renovated, as it had once been the best drinking source in the village.

5. There is still a good deal of sickness in Selimabad. I saw some very hopeless cases; but the tide has turned, and the violence of the epidemic passed to the western side of the river.

6. I also visited, in company with Dr. Elliot, the villages of Sreekestopore and Jot Joyram. The mortality here may be safely given at 10 annas of the population. In one house where we held enquiries there had previously been 10 inmates, there were now 7. In another house, which previously contained 17, there is now left one. The survivors looked miserably ill, all the young children had died, and those that lived were diseased.

7. These latter villages are close to the Chukdighee charitable dispensary, erected and endowed by the late Saroda Persaud. The villagers complained they had received no benefit from the charity, and apparently had ceased going near it. Amidst all the sickness there was an average of 6 in-patients and 46 out.

8. The complaints were in detail as follows :—

That good medicine was given to those who could pay for it, bad to the poor; that no attempt was made by the Sub-Assistant Surgeon to enquire into their cases, but they were hurriedly dismissed; that he was frequently absent on his private practice, and that they were kept waiting for hours unattended to.

9. All these allegations Dr. Elliot and myself after enquiry believe to be true. On holding a committee of the dispensary, and examining the accounts, we discovered, first, that there are two compounders, both of some education and intelligence; that all (viz., sub-assistant surgeon, two compounders) these persons were engaged in private practice; that one of the compounders resided with the Sub-Assistant Surgeon, and that the expenditure of drugs was, for the attendance, preposterous. Besides the Government stock, we were asked to believe that from Rs. 30 to 45 in European medicines were monthly expended on the few patients.

10. The Sub-Assistant Surgeon took upon himself the responsibility by saying that he kept the medicines himself under lock and key, and is therefore responsible for the undue waste that has taken place.

11. The committee recommended to the manager the discharge of both compounders, and the future indent for medicines from the Government stores.

12. The conduct of the Sub-Assistant Surgeon, a Government servant, seems to me most reprehensible. Living in a locality where hundreds were dying, he never seems to have offered them the smallest assistance or medical aid outside the walls of the charity. He has brought the place into discredit, allowed medicines either to be wasted or sold or used up, and that not in the interest of the charity. He deserves the severe censure of his department, if not some substantial mark of its displeasure.

13. The violence of the fever about Chukdighee also has passed to the western side. Dr. Elliot visited several villages and found the epidemic most violent. In one village there was scarcely a healthy man. The name of this particular village is Jot Sreeram, and it is proposed to establish a native doctor and dispensary in the Public Works bungalow with the permission of that department.

14. This will be central for all the villages grouped along the Damoodur bank opposite Lall Kulna.

15. Baboo Dwarka Nath Mitter, a resident at Sreekestopore, offered to subscribe Rs. 150 for medicines, and to contribute towards a dispensary in his neighbours would assist; this they have declined to do. The above amount will, however, be expended in quinine, which has been indented for.

16. I parted from Dr. Elliot at Chukdighee and crossed the river, visiting the villages of Sreekestopore, Rajarampore, Adampore, Tazpore, Pepida, *en route* to Roynah. The fever was very bad in the two former, and the mortality great. These villages lie in a narrow strip of high land, immediately on the banks of the Damoodur, and their water-supply is excellent. Whether the mass of the villagers use the river-water is doubtful.

17. To the west lies a plain of several miles of open country. The first village I went into was Adampore, and I was struck by the healthy appearance of the villagers, who were reaping. I gathered from them that, though they had suffered during last year, the epidemic was now worse than previously, and sickness increasing; that the deaths within the last two years have been from fever about twenty only.

18. Another long stretch of plain, with an abundant harvest standing uncut, lay between Adampore and the west village, Tazpore. Near this village I also remarked the healthy look of the villagers, but learnt that they had been hired and imported from the western portion of Indoss to reap the harvest, receiving 4 annas per diem, besides two rations of food.

19. Approaching the village, signs of funeral pyres were abundant, some still burning. The villagers told the same story as at Adampore, viz., that their village had hitherto escaped, but that in September symptoms of fever broke out, and that it was increasing in violence.

20. The villagers, taking me for the Civil Surgeon, begged that I would visit and prescribe for their sick. I entered several houses. In one there was a group of women seated round a dying woman, evidently of the well-to-do class of villagers. She was, I fear, past

human aid, the family evincing great distress. Within an hour after leaving this village I was attacked with the regular symptoms of fever—nausea, ague, and violent headache.

21. It is perhaps unnecessary to give further details. Roynah, Pollashon, Pashindah, Barpore, Kumarpore, are all suffering severely, and the death-wail is to be heard on all sides.

22. I had intended visiting Oochalun and the villages to the south, but hearing that the Jehanabad Deputy Magistrate was expected there to-morrow,* I have directed him to report on the state of the fever.

23. The arrangements for Roynah, that I would propose are as follows:—

Has been sent.

One native doctor to be stationed at Sreekestopore.

Ditto.

One native doctor to be stationed at Pollashon.

If these two men, with a compounder each, move about the villages in a circle of five miles, they will be of the greatest benefit to the people; and, with the Sub-Assistant Surgeon at Akloky, ought to suffice for the more immediate wants of this thana. But they must be not only here out throughout the district under European medical supervision. If the Government are unable to supply the necessary staff, I would suggest the employment of one or two European executive officers, if they can be spared from elsewhere, to see that the subordinate medical agency at least dispense the medicines with ordinary energy.

24. It is quite clear to me, after the experience of the last three months, that without such supervision any arrangement or organization must fail—medicines will be improperly disposed of, those that can say will be treated, whilst the indigent will be neglected, false returns will be prepared, and itinerant visits will never be made.

25. Under European medical supervision the available medical staff might be vastly strengthened by utilizing the compounders found practising in every village. These men, having served for a short time in dispensaries, set up as practitioners, and have some knowledge of dispensing medicines. I met and conversed with several, and they admitted that they dosed under apprehensions, not understanding the nature and strength of the drugs they employed. Quinine is apparently given by them in any and every stage, without reference to the state of the patient, thereby often increasing congestion. Quinine, brandy, and sago, seem to me always available within a short distance; and if the compounders received a little professional advice, also the treatment to be pursued, they might no doubt do a great deal of good, without any expenditure to the relief fund, the villages where these men are doing well able to pay them.

26. I have made the drinking-supply a special subject of enquiry in each village. The filthy state of tanks defies all description. The villagers complain that, however willing to have them cleaned, they can get no laborers—all are either sick or dead. This evil is daily increasing. A law seems to me urgently required to enable district officers to set apart tanks for drinking purposes in villages. Although the villagers admit such a necessity, they avow they have no internal cohesion sufficient to enforce such a practice, and that unless the Sirkar interferes

they must die. At both Selimabad and Roynah I was asked to interfere; at the former, the inhabitants have taken up the idea that all the tank-water has become hot, and therefore unhealthy, except one, where they both drink and bathe, and also defecate on the banks. Out of Bengal Proper, a Magistrate's order setting apart a village tank would of itself be sufficient authority; but I fear that here, without a penal clause, the order would not only be disobeyed, but liable to immediate reversal on appeal.

Further reports on the medical requirements of the Culna sub-division and thanas Indoss and Khundghose will follow.

No. 366, dated Burdwan, the 21st December 1871.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,
To—The Magistrate of Burdwan.

I HAVE the honor to acknowledge, with many thanks, the receipt of your letter No. 190P, dated the 16th instant, and to communicate the following observations:—

2. I should be glad to be informed what provision has been made, or is to be made, for the relief of the sickly inhabitants of the villages of Mashagorie, Solda, Ajapore, Boro and Choto Banean, and Nursingpore, mentioned in paragraph 1 of your letter.

3. With reference to paragraphs 2 and 3, I have to request that you will submit a separate application for the excavation of the old tank at Selimabad, to enable me to obtain the sanction of the Department of Public Works. As the work cannot be done for two or three months, I beg that you will be good enough to satisfy yourself most carefully that the tank is really the property of Government, and that no claimant will hereafter arise to bring an action for damages or any other demand against Government. It will also be necessary to send an estimate of the cost of excavating the tank, based on certain calculations of the work to be done, and to show from what item of saving of the ferry fund it can be met.

4. With reference to the remarks in paragraphs 5 and 6, it is to be presumed that the mortality has been spread over a series of years, and that you are not referring to the mortality of the last two or three months. It is very melancholy to find that the charitable dispensary at Chukdighee has so totally failed to perform the duty expected of it. As the supervision of the dispensary is with the Medical Department, I request that you will have the goodness to desire the Civil Surgeon to report the case to the Inspector-General of Hospitals, with a view to the adoption of proper measures against the Sub-Assistant Surgeon and the other incompetent officers attached to this institution. It is also desirable that you should communicate to the zemindar your sense of the abuses of his charity which have been permitted to exist before his face.

5. Referring to paragraph 12, I beg to observe that if a native doctor is not available for the proposed dispensary at Jot Sreerum from among those already sent up, you will be good enough to request the Civil Surgeon to get another man at once, and to apply separately for sanction to his entertainment, and to the requisite supplementary expenditure and medicines.

6. I request that you will have the goodness to obtain the subscription of Rs. 150 from Baboo Dwark Nath Mitter referred to in paragraph 14, and spend the amount in purchasing quinine without delay.

7. Your remarks in paragraph 15, regarding the state of the health of the inhabitants of Sreekestopore and other villages, seem to show that the fever visits the people impartially, and without any regard to the good supply of water which they have within their reach.

8. With regard to the arrangements for Roynah, proposed in paragraph 22, I understood that the six native doctors applied for by you in your office No. 188, dated the 9th instant, were intended to provide for these villages, and I beg that you will report if they have been deputed there, or if you still want more men. I beg also to intimate that Dr. Robinson, an English Assistant Surgeon, has been already sent up to Burdwan by Government at my request, and I hope that his supervision of the subordinate medical agency will suffice to meet your requirement. If anything further is needed, I shall be happy to apply to Government.

9. You are requested to bring to the notice of the Civil Surgeon the suggestions contained in paragraph 25 regarding the strengthening of the medical staff by utilizing the services of the native compounders, and providing them with simple instructions.

10. With reference to paragraph 25 of your report, I beg to observe that the subject of the necessity of legislative enactment attaching penal consequences to disobedience of the orders of District Officers setting apart village tanks for drinking purposes will be brought to the notice of Government; but unfortunately the natives themselves will show the strongest opposition to any such attempt at legislation. In the meantime I would advise you to issue perwanahs to the zemindars and putnidars and other influential persons, desiring them to name, and set apart, a tank in each village, as it is evidently their intent that this should be done, and the villagers will probably comply with their order.

No. 4360, dated Fort William, the 30th December 1871.

From—A. MACKENZIE, Esq., Junior Secretary to the Govt. of Bengal,
To—The Commissioner of the Burdwan Division.

I AM directed to acknowledge the receipt of your endorsement No. 383 of the 28th December 1871, regarding the fever now prevailing in Burdwan, and in reply to request that you will be so good as to convey the Lieutenant-Governor's thanks to Mr. C. T. Metcalfe, Magistrate of Burdwan, for his personal exertions in visiting and reporting upon so many of the affected villages, suffering though he is from fever himself. It is due apparently to Mr. Metcalfe's careful enquiries that the shameful misconduct of the Sub-Assistant Surgeon and compounders attached to the charitable dispensary at Chukdighee has been brought to light.

The Lieutenant-Governor considers it desirable that a further and fuller enquiry, formally conducted, should be held into the conduct of these men, and with this view I am to request that you will call upon the Magistrate to submit, in communication with the Civil Surgeon, a joint report as to the extent to which the charges preferred against

the Sub-Assistant Surgeon and compounders are established. If there are any grounds for accepting the charges of mercenary and improper conduct attributed to these officers by the villagers, you are authorized to remove them from the dispensary, and to direct them to proceed to sudder station, and there await the orders of Government.

Your further orders, in respect to the other points raised by the Magistrate of Burdwan, meet with the Lieutenant-Governor's approval.

FEVER IN HOOGHLY.

No. 363, dated Burdwan, the 11th December 1871.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,

To—The Offg. Secretary to the Government of Bengal, Judicial Department.

I HAVE the honor to submit, for the information of the Lieutenant-Governor, copy of a letter, No. 336 of 9th instant, from the Magistrate of Hooghly, regarding the progress of the fever in that district, and the measures which have been taken to afford relief to the people.

2. There are altogether six native doctors and one Sub-Assistant Surgeon specially employed in the interior of the district in contending with the fever. The Sub-Assistant Surgeon is the officer belonging to the new dispensary at Jehanabad, but as there is also a native doctor there, it has been thought advisable to employ him with an itinerant dispensary in the interior of thanas Jehanabad and Goghat.

3. The fever in Hooghly has not been so bad or so fatal as in the district of Burdwan. I have had a long discussion with the Civil Surgeon this morning, and he is able to assure me that the fever is decreasing in every direction. What is now most needed is nourishment and raiment to enable those who are very poor to regain their strength. The Magistrate is out in the district, and I do not know what sums he has hitherto advanced on this account; but I beg that a cheque for Rs. 500 on the Burdwan Fever Fund may be sent to me as soon as possible, to enable the Magistrate and Civil Surgeon to keep the native doctors supplied with the means of providing food and stimulants, and clothing to those who absolutely need it.

No. 336, dated Hooghly, the 9th December 1871.

From—F. H. PELLEW, Esq., Officiating Magistrate of Hooghly,

To—The Commissioner of the Burdwan Division,

I HAVE the honor to report that, from enquiries made by the police, as stated in my No. 293, dated 1st November 1871, it appears that fever prevails to a considerable extent in all the thanas of the district except Serampore.

2. In thana Hooghly old fever and spleen is more prevalent than last year at the same season.

3. In thana Bansberiah there is new as well as old fever; the deaths are few.

4. In Pundooah there is no new fever, but old fever is very prevalent.

5. In Bulagurh fever is very prevalent, and of a mortal type. A native doctor has been sent there, and I am about to visit the thana with another native doctor. The fever is doubtless owing to the inundations.

6. In Serampore there is no fever. In Bydabatty it is very prevalent, as also in Kristonagore. Two native doctors have gone to these thanas. In Chunditollah there is slight fever only, and in Hurripaul it is prevalent, but there is a dispensary of which much use is made.

7. In the thanas of the Jehanabad sub-division, whilst Chunderkona is suffering as is usual, or little more than is usual, at this season, Jehanabad has been very severely visited. The police report that there is fever in every village. It is, however, chiefly old fever, though many deaths are caused by it. In Goghat it is of a similar type, but less widely spread. A Sub-Assistant Surgeon, with an itinerant dispensary, has orders to move throughout these thanas, whilst two native doctors are also stationed at the worst sites.

8. I hope to be able to visit Pundooah, Dhunyahally, Hurripaul, Kristonagore, and Khanakool, as well as Jehanabad and Goghat, at some time or another during the next month. I hope I shall then be able to report on improvement.

No. 4236, dated Fort William, the 19th December 1871.

From—S. C. BAYLEY, Esq., Offg. Secy. to the Govt. of Bengal, in the Judicial Department,

To—The Commissioner of the Burdwan Division.

I AM directed by the Lieutenant-Governor to acknowledge the receipt of your letter No. 363 of the 14th December 1871, and, in compliance with your request, to forward herewith a cheque for Rs. 500 on the Burdwan Division Epidemic Relief Fund, in order that the native doctor now employed in the Hooghly district may be kept supplied with the means of providing food, clothing, &c., to the sick poor who may absolutely need it. The native doctors employed in this work should be closely supervised to see that they actually spend the money on the sick poor. They should, if this is not already done, keep detailed accounts, showing each person relieved, how, and to what extent.

No. 394, dated Burdwan, the 30th December 1871.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,

To—The Secretary to the Government of Bengal, Judicial Department.

In continuation of my letter No. 363, dated the 14th instant, I have the honor to forward copy of a letter No. 342, dated the 16th idem, from the Magistrate of Hooghly, reporting on the state of the fever in that district. I beg to observe that Mr. Pellew, by the kind assistance of Dr. Thompson, the Civil Surgeon, was enabled to go about the district with a native doctor attached to his camp, and it may safely be accepted that the sickness in Hooghly is decreasing, and, fortunately, it appears to have been not by any means so fatal this year as in the district of Burdwan.

No. 342, dated Camp Bhastarah, the 16th December 1871.

From—F. H. PELLEW, Esq., Officiating Magistrate of Hooghly,

To—The Commissioner of the Burdwan Division.

I HAVE the honor to report that I have in my tour visited thanas Bansberiah, Bulagurh, Pandooah, and part of Dhunniakhally, and have made enquiries into the health of the people. My enquiries have been made by visiting the people in several villages, as *e.g.*, Bansberiah, Noasorai, Dhurmodaha, Bulagurh, Somrah, Sreepore, Gooptiparah, Ichapore, Digrah, Pandooah and its vicinity, Boinechee, Juhera, Obhिरामपुर, and Bhastarah; secondly, by questioning the chowkeedars when assembled for inspection; thirdly, by visiting Government and private dispensaries and medicine shops. I have also been accompanied on tour by a native doctor with a supply of medicines, which are freely distributed to all.

2. The result of my enquiries is that the sickness is everywhere decreasing in the thanas visited. In Pandooah it has never been severe, and has greatly decreased; in Bulagurh there was much sickness a month ago, but the people are recovering; in Bansberiah there was considerable sickness, but it is disappearing. Dhunniakhally, as far as regards its northern portion, has never been unhealthy.

* * * * *

No. 394, dated Calcutta, the 30th December 1871

From—DR. A. J. PAYNE, Officiating Sanitary Commissioner for Bengal,

To—The Secretary to the Government of Bengal, Judicial Department.

I HAVE the honor of reporting, for the information of the Hon'ble the Lieutenant-Governor, that on the 18th instant I left Calcutta for the purpose of visiting the fever-stricken districts of Hooghly and Burdwan.

2. On my arrival at Hooghly I ascertained from the Commissioner and the Civil Surgeon that the fever was declining both in the neighbouring villages and the interior of the district, with the exception only of Jehanabad, which place could be more easily reached from Burdwan. It was determined therefore that I should inspect a number of places where the disease had been very prevalent, which lay at short distances from the station, in preference to occupying the time at my disposal by a longer journey. Accordingly, in company with the Civil Surgeon,

Shagung, Khamaiparah, Bansberiah, Bandel and Kesta. The jail, police lines, civil hospital, and main Bazar, Mungultolly, Chumsah, Tolahfutuk, British Chander-nagor, Khoosunge, Katgolah Ghât, Dhurrampore.

Dr. Thompson, I visited the places named in the margin.

3. Everywhere the fever was abating. Although in some of these neighbourhoods it had been very prevalent, it was not generally regarded as having been so fatal as in 1869. The features and the effect of the disease were those which have been fully described in previous reports. The enlarged spleens, the dropsical limbs and the pallid, bloodless condition of many of the sufferers, left little ground to hope that death could be long deferred, or to doubt the

character of the malady. It was gratifying, however, to listen to the terms in which the people mentioned the timely aid they had received this year. Without being questioned on the point, they spoke freely and gratefully of the early medical treatment afforded to them as the reason of the diminished fatality of the sickness, and frequently resorted to it in the conversation I held with them. This was particularly the case at Katgolah Ghât, from whence I learnt that some of the most alarming newspaper accounts of the fever had emanated.

4. At one place only, where there was a temporary dispensary, was it said that the daily number of attending patients was on the increase. There it was noticed that the cases were more or less chronic, and further enquiry brought out the fact that the distribution of efficient remedies and of good food and clothing was rapidly becoming more known (it was an outlying dispensary), and that the larger numbers merely represented the sick of a daily enlarging area. The dispensary had been in existence about a month.

5. In the town bazars and throughout the villages, even in the narrow byways, a high degree of cleanliness prevailed; there was not a foul sight or smell to be found. To say that jungle grows about the houses, that dwellings are clustered round small ponds in which the water is now scanty and looks unclean, that the banks of the ponds are covered to the water's edge with vegetation, which in well-favored localities would be described as luxuriant, but in the presence of disease must be considered rank, is merely to say that the broad features of an ordinary Bengalee village were not wanting here. It must be added, however, that the more noxious belongings of such places in general were conspicuously absent. The ponds were not mere shelving hollows where water had lodged, and the receptacles of all excreta and refuse matter from the houses. They were clean cut little tanks with margins nearly perpendicular, shaped out and cared for by the municipality, and the appearance of the water was merely that which follows of necessity on evaporation and vegetable growth. Moreover, these villages were all within easy reach of the river, and river water was used for domestic purposes by the inhabitants, who were well acquainted with the tide period, at which alone the river water is good.

6. I am well aware that this is not a description of an ordinary district village. It may not be true of any single remoter place where the fever has been most destructive, but it is important in estimating the influence of the more obvious superficial conditions of insalubrity, in causing this fever, to note that it prevails in places where there are no such conditions, and where, as far at least as the surface of the ground and the habits of the people are concerned, sanitation has not been neglected.

7. It was remarkable also that whenever enquiry was made into the classes of people who suffered most, there was but one answer—rich and poor had suffered in equal proportion. Among the dispensary patients this point of course was not illustrated. Food, stimulants, and clothing were with them an essential part of treatment; indeed, they constituted the whole of it when the stage had passed at which quinine is effective. Necessarily also when fever had carried off the working members of many families, destitution was one of the early consequences of the disease; but nowhere was there evidence that scarcity of food was

in any way connected with the first appearance of the sickness. That a malarious fever may first attack weakly and ill-fed members of a community need not be doubted, and that its fatality will, in given cases, in some degree be determined by the previous condition of the person attacked, is equally certain; but this is very far from conclusive of a want of nourishment as a primary cause of the disease, and the fact attested by all the officers whom I met, that the people of Hooghly and Burdwan have of late years been in much better circumstances than formerly they were, makes it necessary to look elsewhere than in the general physique of the population for the true cause of the present state of the districts.

8. Another point very noteworthy among the events of this season is, that several villages formerly severely visited, have now escaped with little or no sickness. Of this Pundooah is an example. Nor has the disease this year shown the same disposition that was evident in 1869 to infest the bank of *khals* to the comparative exemption of places distant from water-courses. I could not ascertain that any material difference was observable in this respect.

9. Passing on to Burdwan, I kept in view the same object which had guided me in Hooghly, namely, to learn by observation and enquiry how the events of the current season are bearing on the several hypotheses that have from time to time been put forward in explanation of the origin and character of the fever.

10. The names of the places visited in this district are given in the margin. They are all at short distances from this station, Mahachand the furthest, being distant only eight miles. Here, as in Hooghly, the most perfect cleanliness was observable, but there was the important difference that there was no broad river to furnish drinking water; small and gradually drying tanks and ponds being the only available resource. The numerous dispensaries and food depôts were in active work, and evidently in the full appreciation of the people, but the complaint which oppressed the local officers was, that there were not enough of these, and that all the medical resources at the command of Government would fall far short of what was required to diminish the frightful mortality which had not yet begun to abate in the district. The particulars of the medical work already accomplished will have been fully reported by the Deputy Inspector-General of Hospitals, with the designs which have been formed for extending it. I confine myself to stating the conclusions to which, in my opinion, past and present events point as to the origin and means of prevention of the fever.

That a fatal fever has of late years become endemic with seasonal outbreaks of extreme severity over a large tract of country, which includes districts formerly among the healthiest in the provinces, and that the fever, though traceable in the local history for many years as an influence of varying but moderate intensity, has only of late assumed a devastating character, points forcibly to some change which has been gradually at work in the physical condition of the tract, and is commensurate in extent, or nearly so, with the prevalence of the sickness. As observation proceeds in successive years it will no doubt be proved, as it is already strongly indicated, that all attempts to localize the

causes by comparing the results in different spots within the infected tract lead only to inadequate views of the magnitude of the evil, and of the scale on which preventive measures to be effective must be applied. A crowded or dirty village here, and poverty and foul drinking water there, may, and doubtless do, by predisposing the human system to any taint that may threaten it and impairing its resistance, determine in some degree the local features of the disease when it comes ; but if such things be held up as the cause of the specific fever, contradiction will arise in the history of other years when places similarly predisposed are less severely visited, and of other places simultaneously visited with no such predisposing cause. It is necessary to regard the circumstances of the whole tract affected and to treat such local things as incidental and capable of influencing only the incidence of the fever among classes and places.

With this view a cause sufficiently wide and potent is not far to seek. It is one which has already been brought to notice by medical officers, and with peculiar force by Dr. Smith, the Sanitary Commissioner, and one which I venture to think the events of each succeeding year tend more and more to bring into absolute demonstration, viz., the gradual conversion of a well-drained, healthy, and prosperous tract of country into the condition of the Lincolnshire fens of many years ago, with a sub-soil water-lodged and exhaling marsh poisons for the population to absorb.

II. It needs but little penetration to see that the people are suffering from the disease which is well known in fenny regions, and from its equally well known accompaniments and consequences ; nor can the dry appearance of the immediate surface soil be long a source of deception, for every wayside puddle shows that there is stagnant water within a foot of the surface even at this season of the year ; and the general state of the sub-soil is a matter of necessary inference. So far the connection between the state of the ground and that of the people is obvious enough, and the remaining point for enquiry, viz., the manner in which this state of things has been brought about, is scarcely less clear from the reports of the engineers who have surveyed the fever districts. That there has been gradual silting up of the natural drainage outlets, is an established fact. It is on record that some of the water-courses, which now are unequal to the drainage of the fields or their banks, were formerly navigable by large vessels ; and that the progress of this evil should have been greatly accelerated by the Damoodur embankment, is but a natural result of intercepting the mass of water which annually scoured the channels and maintained their depth. An opinion prevails on the spot that the embankment through other means has caused the fever. It is thought that a healthy influence in the annual supply of fresh water by inundation, filling the tanks and cleansing the lands, has been lost, and that the fertilizing effect of the river silt is removed, to the impoverishment of the land and of the people ; but these two beneficial agencies are indirect in their relation to malarious disease, and it is not necessary to include any such in estimating the effects of embanking the river, for by the mere mechanical process of scouring the channels the inundation must have without doubt provided that for want of which the districts are now to all appearance suffering gradual depopulation.

FEVER IN BURDWAN, 1872.

Dated the 23rd July 1872.

RESOLUTION—By the Government of Bengal.

READ—

A letter No. 367, dated 6th July 1872, from the Commissioner of the Burdwan Division, submitting a review of the fever relief operations in the district of Burdwan, from the outbreak of the fever in July 1871 to May 1872.

1. The Lieutenant-Governor is glad to believe that as regards the season which has passed, and the assistance which has been rendered to those suffering from the effects of the fever, all that was possible has been done. It is very consoling to know that there is now a lull in new cases, but the Government must necessarily look with much anxiety as the season advances to see whether the fever breaks out virulently again, and must make all preparations to cope with the disease. No aid has therefore been even temporarily withdrawn, but on the contrary improved supervision has been provided, and the large body of medical officers now in the district are doing what they can to raise the general standard of health.

2. Six elephants have been lent by the Government of India for the use of the supervising medical agency. A sufficient supply of quinine has been indented for, and bark from the cinchona plantations at Rungbee has been sent to be tried as a decoction. The Medical Department will be again instructed to strain every resource to supply good men in case of further outbreaks, and in the meantime the services of the young supernumerary sub-assistant surgeons are being utilized.

3. His Honor observes that as regards the causes of the disease and its ultimate prevention there is still a mystery; but while several reports on the drainage of various parts of the district are under consideration, a comprehensive survey of the country, with a view to map out the whole system of drainage, has been undertaken by the officers of the Irrigation Department, who are now levelling it with a view to placing beyond doubt the exact physical facts.

4. In event of a fresh outbreak, the question of funds must demand very serious attention, as the expenses are

already very heavy, and the Government of India has not yet given any grant-in-aid for this purpose. The Lieutenant-Governor, however, does not doubt that the public will be liberal, and that from some source money will be forthcoming to meet such great and indubitable suffering.

5. The acknowledgments of Government are again especially and most fully due to Mr. C. T. Metcalfe, the Magistrate of Burdwan, for his great and self-denying services during the epidemic. The Lieutenant-Governor cannot too often express his appreciation of Mr. Metcalfe's energy and devotion while himself suffering severely from the attacks of fever.

746.

6. To Dr. Jackson, the Sanitary Commissioner, Dr. Elliot, the late Civil Surgeon of Burdwan, and to Sub-Assistant Surgeon, Denobundho Dutt, the acknowledgments of Government are also due for their exertions to provide for the relief of the sufferers; as well as to all the other officers who have done their duty under such trying circumstances.

No. 367, dated Burdwan, the 6th July 1872.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,

To—The Offg. Secy. to the Government of Bengal, Judicial (Medical) Department.

On the receipt of your No. 2039 of 13th May, I requested the Magistrates of Hooghly and Burdwan to send me with the least practicable delay a complete and concise review of the fever relief operations in each district. I requested that the report might embrace a notice of every topic connected with the fever during the past season, and I desired the Magistrates also to put forward any suggestions that they might wish to offer regarding the conduct of operations for the relief of the sick and needy during the coming season.

2. I have now the honor to submit in original a report, No. 205, dated 28th ultimo, from Mr. Metcalfe, the Magistrate of Burdwan, in which that officer has given such a very complete description of the proceedings in connection with the fever last year, that he seems to have omitted only one thing which I am now bound to supply. Mr. Metcalfe has omitted to state that he himself and his servants suffered most severely from repeated attacks of the fever, and notwithstanding all the danger and discomfort which thus attended him, he persevered, whenever and so long as his health permitted, in his exertions to provide for the relief and comfort of the sick and suffering people.

3. Mr. Metcalfe has borne testimony to the eminent services of the medical officers, Dr. Jackson, the Sanitary Commissioner, and of Dr. Elliot, the late Civil Surgeon of Burdwan. I have already reported to Government the high opinion which I entertained of Dr. Jackson's

services in expressing my wish to see the report, which I presume Dr. Jackson has submitted to Government, as to the results of his observations and experience; and I can hardly add anything to what I have already stated, officially and demi-officially, as to the value of the services of Dr. Elliot, whose life was almost sacrificed to the fever in the discharge of his arduous duties. I have, also had occasion to represent the meritorious services of Sub-Assistant Surgeon Denobundhoo Dutt, who has been worn to a shadow by his exertions and sufferings from repeated attacks of fever.

4. Into the history or causes of the fever it is not my intention to enter. The lengthy quotation which the Magistrate has made (paragraph 63) from the report by Dr. Elliot will be found to contain a much more valuable opinion than I could hope to offer. I understand that Dr. Jackson's opinion agrees very much with that of Dr. Elliot, and, as usually happens, the more experience and opportunity of observation each officer enjoys, the more careful he is not to commit himself to any theories as to the causes. There is an old report in the Asiatic Society's Researches of about 1805 by a learned Dr. Balfour, who studied and propounded what he called the "solar-lunar" theory of the causes of fever in Bengal; but, except that it shows that fever prevailed very extensively in Bengal nearly a century ago, there is little to be learnt from the theory of the learned doctor, although he seems to have enjoyed the patronage and assistance of Lord Teignmouth and the other leading officials and non-officials of the day. As Mr. Metcalfe has concisely remarked (paragraph 64), "theory has failed to suppress the fever." Ever since I joined this division in 1869, it has been my endeavour not to seek for theories, but to contend with the enemy in the field.

5. I have waited as long as possible in the hope of receiving a complete report from the Magistrate of Hooghly. Mr. Pellow sent in a brief report on the 8th ultimo in reply to my call, but it was so wanting in particulars that I was obliged to call on him for a further report. As I am now going away on leave, my successor will have to forward the report of the Magistrate of Hooghly.

6. I have only to add that I have no new measures to recommend in addition to the system hitherto in force, and which must be continued, that a dispensary shall be established wherever the prevalence of the fever in any village, or cluster of villages, renders it necessary and desirable. It is to be regretted that we cannot obtain more supervising power from experienced English medical officers, but it is almost impossible to obtain the services of officers having the experience and knowledge of the native character and language that would be so useful. If any one has observed how difficult it is to get his private servants, or the people who come within his immediate influence at a sudder station, to take English medicines properly and regularly, and to submit themselves to reasonable treatment, he will easily conceive how much of the effect is lost when medicine is given to a set of ignorant and doubting people in the villages, who probably do their best to destroy the valuable properties of the English drugs by combining with them (as they fancy) the prescriptions of the kobirajes or the wise and aged women of the village. But it is our duty to persevere in spite of every

difficultly and discouragement, and the only reward that is to be expected is in finding that expressions of gratitude and satisfaction on the part of the people to whom relief is afforded are becoming more numerous.

No. 205P, dated Burdwan, the 28th June 1872.

From—C. T. METCALFE, Esq., Magistrate of Burdwan,
To—The Commissioner of the Burdwan Division.

IN reply to your letter No. 265, dated 21st ultimo, I have the honor to forward a report on the fever relief operations in this district, embracing the period from the outbreak of the fever in July 1871 to the end of May.

1. I have had in view in this report, without entering into unnecessary particulars, to give a general review of the operations of the last six months.

2. An apology is also due for the apparent delay in the submission of the report, but I had called for from the police, and had hoped to have been able to submit, a statistical table showing the proportion of deaths to the population, as taken at the recent census. Another cause which has helped to delay this report has been ill-health since the first week in this month.

3. I had also hoped to have obtained from the police stations information regarding the advance of the fever and the places where it gradually broke out, but the result of these enquiries has not been satisfactory, and the information is *prima facie* inaccurate and valueless.

4. I cannot perhaps preface this report better than to quote the opening paragraph of the Government resolution of the 9th of January 1872.

5. "The fever, which has for more than ten years past been raging in the districts on both sides of the Hooghly, has during the past three seasons chiefly shown itself in Burdwan and Hooghly.

6. "In 1869 it broke out with great violence in the town of Burdwan, and afterwards at different places in both districts; the number of persons attacked was very large and the mortality lamentably heavy.

7. "The fever did not again show itself with anything like the same virulence until July 1871, when it once more broke out within the municipal limits of the town of Burdwan.

8. "Native doctors with medicines were promptly placed at the disposal of the municipality, but the disease went on spreading within the town, and additional medical assistance had soon to be afforded, and food-depôts established for the relief of the sick, as the majority of those attacked were so debilitated by the fever of previous years that they broke down at once under the attack, and were too poor to procure assistance and food for themselves.

9. "In Burdwan no less than nine special dispensaries have been established, four in the town, and five in the district; while a European medical officer and twenty-two sub-assistant surgeons and native doctors

"have been despatched to the aid of the civil surgeon, and are now "doing what they can to relieve the people and check the disease."

10. This resolution was penned in January 1872, and it is necessary to revert to what the state of the fever was in the previous year. On

Appearance of fever in July 1871.

the 24th of July 1871 a communication was received from the civil surgeon, intimating the re-appearance of the fever in the town, and urging on the Municipal Commissioners the expediency of adopting measures for the relief of the sufferers. This communication was treated by the Magistrate, as Chairman of the municipality, and at a special meeting it was determined to open two dispensaries at Sankareepokur and Kamirhaut. Towards the close of August the fever broke

Godā.	|	Kajubere.
Lakoordi.	|	Rajegunge.
	|	Kotalhaut.

out very violently in the western suburbs of the town, especially in the parts marginally noted. This led to the opening of a dispensary at Kanchummuggur. On the 13th of September two food-depôts were opened in connection with these dispensaries, and a visiting native doctor was entertained to attend the more sickly in their homes. Towards the close of September the Kanchummuggur food-depôt being badly attended was removed to Kazirhaut. Subsequently, the relief operations, both medical and food, were extended on the 26th of November to the Kattrapottah mehal, where great sickness was prevailing.

11. At the latter end of September I took charge of the district, and it is no exaggeration to say that at that time almost every human

Violence of the fever in September

being resident in the town was more or less affected by fever. In the public offices, clerks and amlah, as well as higher officials, were suffering from repeated attacks, and many were quite prostrated and unfit for work.

12. On one occasion I received letters from every official subordinate to myself placing themselves on the sick list.

13. The district police were utterly prostrated. Scarcely any constables were to be seen stalking about unequal to any duty. Men were fit for work one day and laid up for five or six.

14. The unfortunate jail darogah and the whole of his family were for weeks sufferers. The jail hospital was filled to overflowing, and the prisoners, if any, that actually escaped the fever became weak and bloodless, with every appearance of scurvy. The most miserable objects were to be seen attending the dispensaries for food and medicine.

15. In the earlier part of October the civil surgeon, who had suffered most severely from the effects of the epidemic, took leave, and left the district on the 13th of October. One European, a Mrs. Gisborne, had already succumbed to the disease, and her husband was nearly at death's door. The sickness was prevalent throughout the East India Railway Company's premises, and several had to leave the place as the only chance for their lives. Households were without servants; the municipality without sweepers or scavengers. Many ludicrous scenes arose from the helplessness of persons suffering from the epidemic. A criminal tending the constable in whose custody he travelled. A jail darogah, carried about to his current duties in the arms of his warders; whilst from the interior of the district came lamentable accounts of fever-stricken villages.

16. Nearer to Burdwan it was found necessary to open a dispensary at Serai Tikur and Mahatta. Accordingly, opportunity was taken of

the timely arrival of two hospital assistants on the evening of the 4th of November to post them at the above villages, and the itinerant sub-assistant surgeon, who had been employed within the municipality, was ordered off to Mahachanda to open out a dispensary there.

17. The Deputy Magistrate of Cutwa, Baboo Jogossur Mookerjee, also reported that great sickness prevailed at Mungleote. He was directed to remove his head-quarter dispensary temporarily from Cutwa to Mungleote, and direct the sub-assistant surgeon to give such relief to the neighboring villages as he could till further aid should arrive.

18. Later in the month a pressing demand for assistance was received from Ausgram, which was forwarded on the 18th. The following dispensaries were by this time at work :—

Within the municipality	...	...	...	...	4
Akloky opened since July 31st	...	...	...	...	1
Serai Tikur " " Nov. 5th	...	...	...	...	1
Mahatta " " " 6th	...	...	...	...	1
Mungleote " " " 9th	...	...	...	...	1
Ausgram " " " 18th	...	...	...	...	1
Mahachanda " " " 23rd	...	...	...	...	1
Chukdighce charitable dispensary	...	...	...	...	1
Total					11

On the 13th of November Dr. Elliot returned from leave.

19. Whilst every exertion was being made to meet the demands of the fever-stricken villages in the Burdwan and Mungleote and Bood-ood circles, a report was received from the sub-assistant surgeon in charge of the Akloky dispensary, suggesting that it should be either closed or transferred, as there was little or no sickness. This statement was the more remarkable in the face of the police reports that fever was increasing every day in violence; and in order to test the truth of this assertion, sub-assistant surgeon, Denobundhoo, was at once ordered off to enquire and report

20. So far from the sub-assistant surgeon's report being found true, the condition of the southern tract may be summed up in the following words: viz., that the whole of South Burdwan presented one uniform and lamentable scene. With some few exceptions, whole villages were utterly prostrated and suffering from the debilitating effects of fever.

21. It was further shown that large rice fields intervened in this part of the district between each village. Roads there are none, not even village tracks. The country is intersected by nullahs. All these local features added to the difficulties of the sick and weak attending merely central dispensaries.

22. The result of the sub-assistant surgeon's enquiries were reported in this office No. 188, dated the 9th of December, in the following words: "The fever has for some time past been increasing in severity. I had hoped, and indeed been led to expect, that with the

approach of the drier weather much of the severity of the disease would have abated; this hope has not been realized, and it becomes necessary again to ask for the services of more native doctors."

23. The Government promptly responded to this call, and in their Government reply sanctioning aid. No. 4131, dated 14th of December, sanctioned *carte blanche* the purchase of clothing and other necessaries for the sick. It was becoming daily more apparent that, in order to supply aid efficiently, the operations must be largely extended, and to effect anything like real good to the community, it would be necessary to establish dispensaries in every second or third village.

24. With a view to obtaining greater local knowledge of what we had to deal with, Dr. Elliot and I started off for the southern portion of the district. The results of our inspection were fully detailed in the reports* submitted to Government.

Dr. Elliot writes:—"Since my report of the 8th of December there has been no abatement either in town or district; new cases prevail in villages lying to the north-west of the district. In Bood-bood subdivision reports of the prevalence of the fever are so general that it would be difficult to say where the disease is not. The same type of fever prevails throughout with urgent congestive complications at first, and enlargement of spleen and liver afterwards.

Dr. Elliot further reported:—"On the 13th of December I visited the villages Sreerampore, Sreekrishnapore, Rajahrapore. After minute inspection, having visited from house to house, I saw upwards of 300 people, all sick in different stages of the disease. Many were prostrated with fever, others in great debility and poverty eking out a miserable existence, without proper nourishment, covering from cold, or care of any kind. The mortality has been, and is still, very great."

25. As fast as the native doctors arrived or locally could be entertained they were deputed into the interior. On the 20th of December the Deputy Inspector-General of Hospitals paid his second visit of inspection to Burdwan. He found that there had been a considerable increase of sickness in the district generally during November and December; that the food and clothing were essential in association with medical relief for the treatment of the sick.

* From Dr. Elliot, Civil Surgeon of Burdwan, No. 492, dated 18th December.

From Magistrate of Burdwan, No. 198, dated 16th December 1871.

26. At the latter end of December the more fever-stricken portions of the district had been divided for the purposes of supervision into three circles, and the eleven dispensaries opened up to the 23rd November had expanded into the following 21 :—

CIRCLE.	Village.	Native Doctor.	Superintending Medical Officer.
Burdwan Circle	1. Municipality	Unnoda Persad Day	Sub-Assistant Surgeon, Denobundhoo Dutt.
	2. Ditto	Porno Chunder Sen	
	3. Ditto	Judoonath Bhattacharjee	
	4. Ditto	Luchmee Prosad	
	Seraettkur	Shahabuddin	
	Mahachanda	Chundro Kishore Roy	
Roynah Circle	Pallasee	Raj Coomar Ghose	Sub-Assistant Surgeon, Tara Prosono Roy.
	Gulshee	Dwarkanth Ghose	
	Roynah	Nobin Chundro Sen	
	Meral	Rajkissen Maduk	
	Digulgram	Mohamed Tussil	
	Polashone	Pearce Lall Sen	
Munglecote Circle...	Akloky	Greesh Chunder Goopto	Assistant Surgeon, Mr. Robinson.
	Jote Sreeram	Uddaita Chunder Mookerjee	
	Khundghose	Sheik Fakir Mahomed	
	Munglecote	Pearce Lall Sen	
	Damhaut	Hatem Ally	
	Ausgram	Omesh Chundro Goopto	
	Arora	Meer Waris Ally	
	Mahatta		

The following table will show the attendance at this period of the year at the various circle dispensaries :—

1	2	3	4	5	6	7	8	9	10.	11	12	13
NAME OF DISPENSARY.	Week ending 8th October 1871.	Week ending 15th October.	Week ending 22nd October.	Week ending 29th October.	Week ending 5th November.	Week ending 12th November.	Week ending 19th November.	Week ending 26th November.	Week ending 3rd December.	Week ending 10th December.	Week ending 17th December.	Week ending 31st December.
Khundghose	38
Gulshee	330
Mahachanda	278	205	203	196	242
Seraettkur	445	205	262	213	218	310	563
Mahatta	80	210	372	315	363	312	253	218
Akloky	...	490	557	450	235	215	256	347	445	220	136	242
Ausgram	121	213	304	266
Chauk	360
Damhaut	210
Munglecote	104	105	213
Polashone	451
Meral	161
Digulgram Bamuah	523
Arora	1,014
Dharun	230

27. In connection with the fever, on the 20th of December, the Officiating Sanitary Commissioner of Bengal also visited and inspected Burdwan and its neighbourhood, writing

Inspection by Sanitary Commissioner,
December 1871.

on the causes of the fever. Dr. Payne in the 14th paragraph of his letter thus sums up:—"It needs but little penetration to see that the people are suffering from the disease which is well-known in fenny regions, and from its equally well-known accompaniments and consequences. Nor can the dry appearance of the immediate surface soil be long a source of deception, for every way-side puddle shows that there is stagnant water within a foot of the surface even at this season of the year, and the general state of the sub-soil is a matter of necessary inference. So far the connection between the state of the ground and that of the people is obvious enough, and the remaining point for inquiry, viz., the manner in which the state of things has been brought about, is scarcely less clear from the reports of the enquirers who have surveyed the fever districts. That there has been a gradual silting up of the natural drainage outlets is an established fact. It is on record that some of the water-courses which now are unequal to the drainage of the fields or their banks were formerly navigable by large vessels, and that the progress of this evil should have been accelerated by the Damoodah embankment, is but a natural result of intercepting the mass of water which annually scoured the channels and maintained their depth. An opinion prevails on the spot that the embankment through other means has caused the fever. It is thought that a healthy influence in the annual supply of fresh water by inundation filling the tanks and cleansing the lands has been lost, and that the fertilizing effect of the river silt is removed to the impoverishment of the lands and of the people; but these two beneficial agencies are indirect in their relation to malarious disease, and it is not necessary to include any such in estimating the effects of embanking the river, for by mere mechanical process of scouring the channels the inundation must have without doubt provided that for want of which the districts are to all appearances suffering gradual depopulation." These words were penned in December, based on local impressions of the features of the district as they then exhibited themselves to Dr. Payne.

28. I have now brought the narrative of aid operations to the end of December, at which period the State of fever at close of 1871. disease was still very violent; the mortality had been excessive, and those left were all more or less diseased and enervated, as far as this district is concerned, and so this cheerless old year passed away.

29. It was now determined to hold more minute enquiry into the actual condition of the mofussil villages. With this object, in company with Dr. Jackson, I visited day by day a very large number of villages both on the southern and eastern portions of the district. We found a very large proportion of sick in houses bedridden, who had no chance of ever seeing a doctor. Many were women, purdah nushins, others unable through sickness to visit the neighbouring dispensaries.

30. In conjunction with Dr. Jackson, whose exertions in ascertaining the extent of and prescribing for the sick were most meritorious, information was daily sent to Dr. Elliot at head-quarters of the villages most requiring medical aid.

31. Dr. Elliot responded to these calls as fast as the professional men were despatched from Calcutta or elsewhere. A centre store department had been organized at Burdwan, and as each native doctor or sub-assistant surgeon arrived he received his supplies and was at once posted to a village.

32. As soon as it became generally known that the Government were dispensing open-handed aid, applications and petitions for the opening of dispensaries came pouring in from all quarters, some to my office, others to the civil surgeon. Each case was separately dealt with, and the actual requirements of each village enquired into by local inspection either by the sub-divisional officers or one of the supervising medical surgeons. This led to a far wider range of medical aid, and at the latter end of January forty-five dispensaries were working at an estimated monthly expenditure of Rs. 4,696-8.

* * * * *

33. It was found necessary in some localities to place dispensaries within a mile of each other, as both the Sanitary Commissioner and I found persons suffering from violent fever and others recovering, residing within half a mile of a dispensary, who had never sought or received medical aid of any kind. This was notoriously the case both at *Ichla Bazar* and *Kanchannuggur* in the town of Burdwan, and at Gopalberch and the neighbouring villages in the Oochalum circle. In other places again, such as at Akloky, a neighbouring dispensary was found necessary in order to draw off the press of patients from Akloky, where the numbers were so large that it was impossible for the sub-assistant surgeon to treat them properly. This clustering of dispensaries naturally gave rise to much consultation, but the arrangements first made were adhered to as affording the most efficient aid to the sick.

34. The visiting from dispensaries to neighbouring villages was also insisted upon, but has, I fear, never been performed in the way it should have been, and this notwithstanding the supervision to which the sub-assistant surgeons and native doctors had been subjected.

35. The Medical Department are perfectly well acquainted with the shortcomings of the class of sub-assistant surgeons and native doctors; serious notice of the conduct of the chief culprit has been taken, and I therefore do not propose further to enlarge on their many iniquities. A very large portion of the work which has fallen on the Civil Surgeon in connection with the relief measures has arisen from the perversity and bad conduct of the class I have referred to. There are a few honorable exceptions. Towards the end of January the fever had abated.

State of fever at end of January 1872.

36. In my reply to Commissioner, No. 34, dated the 30th of January, I reported as follows:—

The fever is not so severe as it was in November and part of December, but a very large proportion of the population are still subject

to repeated attacks. Spleen disease is very general. I also offered the following observation, viz.:—

There is a marked difference between the physical appearance of the people afflicted with fever, who reside near the Damoodur where there are no *bunds*, and those who reside on the northern side where there are *bunds*, and that whatever the cause of the present fever, whether malarious, endemic, or epidemic, it is effected in greater or lesser degree by local causes, and that in those localities where water-supply is the purest, the fever seems to cause amongst the greater portion of the population lesser deterioration of physical strength.

37. I arrived at the conclusion that in no place which I have visited in the district has the fever so deteriorating an effect as in and about the sudder station of Burdwan. I am satisfied that the chief cause of the excessive sickness and debility of the persons resident here is due to the impure and unwholesome water which they drink, although that impure water may not be the primary cause of the fever itself.

37½. In this month Baboo Bhugoban Chunder Bose, personal assistant to the Commissioner, was transferred to Burdwan to supervise the food and clothing relief. On the 13th of September two food-depôts had been opened within the municipality, and had been carried on under the supervision of the Municipal Commissioners and under the direct management of the Secretary to the Municipality.

It had been strongly urged by the Medical Department that to give medicines to persons who had insufficient food to nourish their bodies was useless, and that medical aid must be supplemented by good and wholesome diet. The earlier operation on account of the food-depôts may be the better detailed in the following tabular form:—

	Sankareepokur.	Kazirhaut.	Patrapottah.	Total.
Total attendance—				
September ...	1,362	384	.....	1,746
October ...	2,426	1,842	.....	4,268
November ...	2,496	2,490	162	5,148
Daily attendance in average—				
September ...	75·6	21·7	.....	97·3
October ...	78·26	59·33	.....	137·59
November ...	83·02	83	34	200·02
Total cost—				
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
September...	127 1 0	59 8 0	.....	186 9 0
October ...	188 2 3	143 12 9	.....	331 15 0
November...	186 5 0	181 13 9	18 6 0	386 1 9
Average cost per head—				
September...	0 1 5	0 1 5	.....	0 1 0
October ...	0 1 3	0 1 3	.....	0 1 3
November...	0 1 2	0 1 2	0 1 9	0 1 4

The total cost of the food relief from the commencement of the operations to the end of November amounted to Rs. 1,075, and the expenditure had been hitherto borne by the municipality; but at this point their resources failed, and the expenditure was henceforth borne by funds advanced by Government from subscriptions, &c. The following statement shows the subsequent operations of the municipal food-depôts:—

WEEK ENDING.	SANKAREPOKUR DEFOT.				KATRAPOTTAH DEFOT.				KAZIRHAT DEFOT.				TOTAL NUMBER RELIEVED BY CLASS.		Grand total of persons relieved.	Total daily cost.	
	Number of persons relieved.		Cost.		Number of persons relieved.		Cost.		Number of persons relieved.		Cost.		Soup diet.	Milk diet.			
	Soup diet.	Milk diet.	Total.	Rs. A. P.	Soup diet.	Milk diet.	Total.	Rs. A. P.	Soup diet.	Milk diet.	Total.	Rs. A. P.	Soup diet.	Milk diet.			
7th December 1871	983	437	720	56 8 0	196	248	444	36 9 3	215	442	657	45 12 9	694	1,127	1,821	138 14 0	
14th "	306	431	737	57 2 0	190	238	428	38 11 6	254	465	722	52 10 8	725	1,264	1,989	148 12 9	
21st "	262	831	643	53 0 9	210	418	628	43 11 9	254	465	722	52 10 8	725	1,264	1,989	148 12 9	
31st "	631	782	1,413	94 11 9	348	645	993	67 7 6	424	707	1,131	81 5 3	1,403	2,101	2,937	249 1 3	
7th January 1872	381	629	1,010	72 12 0	298	350	648	44 0 3	314	405	719	55 2 9	993	1,284	2,101	171 13 0	
14th "	479	575	1,054	76 2 0	276	365	641	46 10 0	292	351	643	50 14 9	1,047	1,321	2,368	173 10 9	
21st "	497	609	1,106	71 12 3	278	360	638	44 3 9	271	299	570	44 13 6	1,046	1,268	2,314	169 16 6	
28th "	367	751	1,118	108 2 0	475	367	1,042	73 12 9	383	462	845	65 11 9	1,435	1,780	3,215	247 10 6	
4th February	367	751	1,118	108 2 0	475	367	1,042	73 12 9	383	462	845	65 11 9	1,435	1,780	3,215	247 10 6	
11th "	402	535	940	77 7 0	388	392	780	44 5 3	383	329	712	45 11 3	1,033	1,269	2,302	174 7 6	
18th "	388	587	945	77 10 6	354	383	737	51 8 3	233	383	616	45 9 0	1,065	1,393	2,488	194 13 8	
25th "	392	794	1,186	88 13 8	356	445	801	56 14 6	268	387	655	49 8 6	1,091	1,697	2,622	194 11 8	
7th March	402	666	1,068	74 1 9	343	385	728	50 7 9	246	336	582	45 9 6	991	1,387	2,378	170 3 0	
14th "	384	492	886	61 12 7	292	303	595	45 12 6	179	300	479	39 1 3	835	1,095	1,930	146 10 4	
21st "	224	298	522	45 13 6	172	228	400	35 5 0	151	292	443	38 13 3	547	818	1,365	119 15 0	
28th "	224	298	522	45 13 6	172	228	400	35 5 0	151	292	443	38 13 3	547	818	1,365	119 15 0	
5th April	227	296	483	42 9 9	210	278	483	39 2 6	176	250	396	48 7 9	513	794	1,307	130 4 0	
12th "	256	307	563	45 0 0	231	253	534	41 6 0	45	121	166	15 1 3	552	711	1,263	101 7 3	
19th "	277	350	627	50 0 3	233	259	482	39 3 0	...	...	...	...	560	609	1,169	106 3 0
26th "	248	394	642	57 15 0	296	323	579	48 4 0	...	...	...	...	504	717	1,221	108 3 0
3rd May	159	288	447	41 15 3	153	215	368	36 6 9	...	...	...	...	312	563	875	78 6 0
10th "	159	288	447	41 15 3	153	215	368	36 6 9	...	...	...	...	312	563	875	78 6 0
17th "	159	288	447	41 15 3	153	215	368	36 6 9	...	...	...	...	312	563	875	78 6 0
24th "	159	288	447	41 15 3	153	215	368	36 6 9	...	...	...	...	312	563	875	78 6 0
31st "	183	290	483	43 11 9	148	199	397	34 1 3	...	...	...	...	372	666	1,038	109 1 9
7th June	240	304	544	47 7 3	165	174	339	31 12 9	...	...	...	...	572	498	1,070	79 4 0
14th "	335	351	686	54 2 6	198	175	373	31 5 3	...	...	...	...	533	498	1,031	79 4 0
21st "	375	404	779	58 14 3	253	182	435	43 10 0	...	...	...	...	628	586	1,214	102 8 3
Total	9,011	12,447	21,458	1,695 1 3	6,950	8,822	15,772	1,206 11 0	4,338	6,771	11,109	873 12 6	20,299	28,040	48,339	3,775 8 0	

38. Baboo Bhugoban Chunder was relieved of all judicial and revenue work and employed chiefly in visiting and opening food-depôts, 1st, in the Munglecote circle, and 2nd in the Bood-bood and Burdwan circles, with occasional visits to Sreekestopore. He was also employed in travelling through the centre of the district to ascertain if there were any places requiring aid to which none had been hitherto sent.

39. At his recommendation several dispensaries were opened and food-relief started in conjunction with medical treatment. The dispensaries by the middle of February had increased to fifty, and many had been transferred from localities where the fever had abated and the attendance farther off.

Relief centres.

40. In connection with these dispensaries there were working the following relief centres:—

ROYNAH CIRCLE—Sreekestopore, Aosparah, Polashone, Gopalberch, Bamoniah, and Akloky.

MUNGLECOTE CIRCLE—Munglecote, Chanuk, Mahachanda, Kurmun, and Palassy.

BURDWAN CIRCLE—Katrapottah, Kazirhaut, Baldangah, and Seraietikur.

BOOD-BOOD CIRCLE—Bhalkee, Bood-bood, and Gulshee.

These had come into existence as the demand was created.

41. There had been some apprehension that they would be largely resorted to by all classes, even by those who were well-to-do; these fears were not realized. Experience shows us that even the poorer classes have the greatest aversion to partaking of cooked food when issued from a relief-depôt, and that it is only when hunger pinches that they resort there. Children* who have been brought in the early mornings have had milk offered to them, but the mothers have invariably declined, saying, I have a cow at home, why should she take milk here?

* Of well-to-do persons.

42. Blankets were kept in store at each depôt, and distributed as occasion called for. The medical officers in charge were authorized both to distribute and indent for more clothing as required.

43. On the 28th of February your memorandum of the 27th idem was received, conveying to the Maharajah of Burdwan notice of the special satisfaction of the Government of India at the contribution made by His Highness in furtherance of the relief operations, which notice was duly communicated to the Maharajah.

44. Between the 15th of March and 20th of April, 108,661 persons sought relief at the dispensaries within the district. As compared with 114,042 in the month of April, the figures for which are given separately, many of these figures necessarily represent the same persons over and over again. Still the number above stated actually attended and received medicine and advice.

Circle.	Period.	Total number of persons.	Period.	Total number of persons.	Increase.	Decrease.
Burdwan	... March...	32,274	April ...	33,167	893	.....
Munglecofe	... Ditto ...	13,254	Ditto ...	17,577	4,323	.....
Khundichose	... Ditto ...	22,443	Ditto ...	24,797	2,354	.....
Oochalun	... Ditto ..	22,073	Ditto ...	21,387	.....	686
Roynah	... Ditto ..	18,617	Ditto ...	17,114	.....	1,503
Total	... ..	108,661	.....	114,042	5,381	2,189

During this period many relapses occurred, congestion of the liver complicating many of the cases. In several of the villages where it had completely subsided, the fever again broke out, though in a moderate degree, during the third and fourth weeks of March. Sub-Assistant Surgeon, Denobundhoo Dutt, who had experience of a previous year, was of opinion that the fever was worse during the present hot season than it was during the past season of 1871-72. Some new cases of fever were also observed in Digulgram, Gopalberch, and Bamoniah, although on the neighbouring villages none were reported.

45. The Karolia dispensary was moved to Ausgram at Dr. Robinson's suggestion, and the sickness at Shor, a large village with 2,500 inhabitants, and at Dignuggur, with a population of 4,000, were the special subjects of enquiry. The fever also during this period was occurring violently at *Talit* and in the neighbouring eighteen villages. At Potunda, Palta, Bhytia, great sickness prevailed. At Amrah dispensary there was an attendance of over 220 per diem. Patients coming from fourteen neighbouring villages.

The following villages also received special attention, and were reported on by Dr. Robinson and other superintending officers:—

Bursool near Saktighur.	
Jowgram near Mymaree.	
Jabooio	... } Approximate fourteen miles north-east of Burdwan.
Bejoy	
Koochut	... } Twelve miles from Burdwan north-east.
Digulgram	... } South of Burdwan.
Bhoonri	... } Sub-division Bood-bool.
Chalalpore	
Poorandagur	
Aral	
Kharo	

and many others.

46. During the month of March 7,528 indigent sick were fed at the depôts, the average attendance being 252 per diem, at a cost of Rs. 487-0-7, at the rate of Rs. 15 per diem, of which Rs. 12 was for food, and Rs. 2 for establishment. The daily average cost was 11½ pie per head, and the monthly expenditure Rs. 1-15 per head, of which Rs. 1-8-11 was for feeding, and 6 annas 4 pie for establishment.

During the month of April 9,387 indigents were relieved at a cost of Rs. 552-10-3, or Rs. 18-6-8½ per diem.

47. In this month a correspondence was carried on with the

Steps taken to prevent abuse of food-depôts.

Municipal Commissioners' office regarding the checks to be placed on persons seeking food-relief, more particularly within the town of Burdwan, with a view to prevent persons

capable of working from receiving gratuitous relief. The following rules were put in force:—

1st.—Identification of each pauper by the headmen of the village, and certification that he or she was a proper object for charity.

2nd.—Inspection by supervising medical officer, and the grant of a food ticket by him.

3rd.—The issue of food simultaneously with that from the Maharajah's golabaree, the distance preventing the beggars who resort to the latter from again presenting themselves at the depôts.

48. For the mofussil depôts the system of food relief adopted was as follows:—

The headmen of the village drew up a list of those known to be in actual want of food; in other words who lived by labor, and being unable to labor, were deprived of the means of existence. Such persons received depôt tickets when sick from the medical officer and received rations. I found the system to work well, and far more satisfactorily than where the matter was left to the native doctor and the peon without any responsible agents. Stores of the best quality of rice and dhâl were obtained from Calcutta and left in the custody of the village headmen. I have no reason for thinking that the trust was abused.

49. The state of the public health had been gradually improving throughout the latter part of the month of March and April. In the former month I reported on this improvement, attributing it chiefly to the drier weather. The most wretched creatures, I wrote, are, however, still to be seen: women with shrivelled-up bodies and attenuated limbs; others with swollen feet and faces; others again whose mouths are in a state of ulceration.

50. Amongst those seeking relief I find the following circumstances to be very general: a woman with one or two children, the remnants of a family of the working class; the rest having died. Both women and children have suffered from fever and are debilitated. The sole chances of persons similarly situated rested in our food-depôts.

51. In this and the following month accounts began to be received of fever in the still more western* villages of the district, and the special Deputy Collector was sent out to enquire and report on Kastpore, Dharamtola, Shimshimi, Ramnuggur, Vikrampore, Sharool, Durbarpore, where there had been seventy-five deaths. Balam, where 100 had died and 64 found sick. Adra, where 141 sick were found, and five deaths had occurred in one night. Shenda and Russickpore, Shikarpore, Goligram, and Bheddiah (on the rail) Shor, Dignuggur, and Balkee. To these relief was administered such as lay in our power. At Adra, Bheddiah, Shor, Dignuggur, dispensaries were established.

52. In the northern portion of the district, *i.e.*, in the Munglecote or Cutwa sub-division, a general improvement in the health of the people was manifest. Dr. Jackson visited the greater part of the division, and, although finding a good deal of sickness prevalent, was of opinion that the type of the fever was not so severe as in the Roynah circle.

* Fever had been reported in some in December.

53. He commented on the jungly state of pergunnah Poorbus-thuleo, a tract where the fever five years ago committed great havoc, and indeed, I may say, nearly depopulated the villages.

54. Before closing this portion of my report, I wish to add a few lines regarding the mortality and its registration. The following statement will show the difference in population of the town of Burdwan between 1869-72 :—

		Census.	
		1869.	1872.
Total number of houses	...	14,048	17,631
Males	{ Adults ...	15,867	12,310
	{ Children ...	7,380	4,336
Females	{ Adults ...	17,135	12,772
	{ Children ...	5,739	3,269
Total population	...	46,121	32,687

The result shows a numerical decrease in the population of the municipality during the past three years of about 13,000 persons, or taking births into calculation, say 15,000.

55. For the mofussil villages, registrations have been attempted of the names of the parties dying, their residence, caste, &c. The pound mohurirs have been appointed registrars, and the village chowkeedar on giving his hazoree at the thana also gives information regarding the names and number of persons who have died within that week.

The result of these figures is as follows :—

		Males. Females. Total.		
July	...	372	266	638
August	...	608	407	1,015
September	...	659	387	1,046
October	...	1,189	831	2,020
November	...	1,733	1,018	2,751
December	...	2,258	1,357	3,615
January	...	1,306	920	2,226
February	...	791	477	1,268
March	...	982	570	1,552
Total	...	9,898	6,233	16,131

In practice, however, the chowkeedar himself often falls sick or fails to inform himself of the actual mortality of the village, and many perish who are never registered.

56. The subjoined is a comparative statement of sickness as shown by the register of attendance during the months of April and May. The register shows a satisfactory decrease of 9,824 persons :—

Comparative Statement for April and May.

NAME OF CIRCLE.	Period.	Total of patients.	Period.	Total of patients.	Increase.	Decrease.
Burdwan	April	33,167	May	25,744	.....	7,423
Munkeote	"	17,577	"	15,706	.....	1,871
Khundghose	"	24,797	"	29,628	4,831	.....
Oachalan	"	21,387	"	20,857	.....	530
Royuah	"	17,114	"	20,061	2,947	.....
Total	.....	114,012	...	111,996	7,778	9,824

From all sides reports are received of the improvement in the public health: the cases at present treated are chiefly chronic cases.

During the month of May 8,948 indigent sick were fed; the average being 288 per diem.

In the month of April the average was 353; the cost incurred for the month of May aggregates Rs. 417-11-10, at the rate of Rs. 16-0-6 per day, of which Rs. 13-7-9 is for food, and Rs. 2-8-9 for establishment.

57. The amount of subscriptions realized have been separately notified.

58. Although there is at present a lull in the disease, I am apprehensive of a further outbreak towards the latter end of July.

59. To meet a possible increase of sickness, I am of opinion that blankets should be largely distributed in July to the poorer classes, and every dispensary should be well stocked with medicines in anticipation of the great demand which I fear will arise.

As during the rains there is great difficulty in locomotion, I should request that six elephants from the Commissariat Department may be ordered to Burdwan for the use of the supervising medical agency.

60. Before closing this portion of my report, I have to bring to your favorable notice the assistance which I have received from Baboo

Favorable mention of officers.

Juggossur Mookerjee, Deputy Magistrate of Cutwa, whose reports kept me fully acquainted with the outbreak in his sub-division, and who I found very active in visiting and reporting on the condition of the people. Also from Baboo Protapnaram Sing, Deputy Magistrate of Bood-bood, who has lately given great attention to the subject of this fever. From Baboo Bhugoban Chunder Bose, and Baboo Bogolanund Mookerjee who succeeded him, I received ready aid, and I have to record my satisfaction in the discharge of their duties.

61. The services of the medical officers will doubtless be noticed in that department; but I cannot close this portion of my report without recording my sense of the loss the district has sustained in the transfer of Dr. Elliot, late Civil Surgeon, whose organization of the medical agency was admirable.

62. The subject of the possible causes and remedies of this destructive disease have been so fully and carefully treated and described both in Mr. Adley's, C.E., reports of the 25th of June and 10th of September 1869, and Dr. Smith's No. 253, dated 12th of May, published in the *Government Gazette* at page 412 of the 29th of June 1870, that any suggestions which I might offer would necessarily be a mere recapitulation of those recorded by more able and scientific writers. I am not aware that any action has hitherto been taken by Government on the common sense suggestions therein offered, viz., in deepening the beds of rivers and removing silts from the natural watercourses of the country; in regulating sluices in *bunds*; in legislating for setting aside village tanks for water-supply; for the prevention of burials of dead bodies on the sides of tanks or in the beds of rivers; for the proper disposal of the dead; for the draining of railway cuttings, and to these suggestions it is difficult to add; but if practical acquaintance with the prevailing disease through a series of years and in different localities is at all likely to enable a professional man to arrive at any conclusion, the opinion of

Dr. Elliot, late Civil Surgeon of Burdwan, who has seen the disease in all its various stages in Jessore, Hooghly, and Burdwan, is fairly entitled to careful consideration.

63. At paragraph 27 I have quoted at length an extract from

Civil Surgeon's view of the conditions under which the fever prevails.

Dr. Payne's report, based on his own observations on the outward state of the district in the month of December.

I would now quote Dr. Elliot's very precise review of the conditions under which the present fever prevails:—

“It would appear to be no new disease that is now laying waste portions of the district of Burdwan; it is an exaggerated and congestive form of malarious fever, most frequently of the intermittent, but also of the remittent type, generally assuming the most intense and a splenic character in localities where the recognized predisposing causes of disease preponderate most.

“As outbreaks of the disease have from time to time occurred, it has been attributed at different periods of its progress to a variety of circumstances happening accidentally or simultaneously with the outbreak.

“Excessive falls of rain during certain seasons, want of sufficient rainfall during others, the cyclone in 1864, the famine in 1866, have each in succession been assigned as the predisposing cause in localities where their influence had been felt. Road, railway, and river embankments, changes in the course of large rivers, the silting and drying up of the channels of their tributaries, are thought to have obstructed drainage, and exercised a prejudicial influence on certain tracts by the retention in them of subsoil moisture and damp.

“Fever of the same type as that now prevalent had occurred during a variety of seasons before the cyclone or famine years. It had been prevalent in districts adjacent to Hooghly and Burdwan before the construction of river or railway embankments, and since their existence it has not been more prevalent in localities, the physical condition of which may have been affected and changed thereby, than in others many miles distant, where the same influence cannot have reached.

“The silting up of river and drainage channels is not new; the process must have been a gradual one, and it does not appear that subsoil water is nearer the surface now than it had ever been. It has not been observed to have occurred in rivers of other districts over an area and proportionate to that invaded by fever; neither in the present instance has the outbreak confined itself to the area over which the exciting cause is supposed to have operated; for fever appears to be passing, or may have already passed, into villages of contiguous districts which are not inundated, and where the formation of the soil differs from that of Burdwan and other low-lying districts.

“The embankment on the Damoodur on the left side, has shut out the river from the tract of country to the eastward. From want of annual inundation the water collected in tanks and ponds has not been changed, or the channels of streams and water outlets sufficiently scoured and cleansed.

“Fever prevails extensively at the present time in a tract of a country so circumstanced, situated on the left bank of the river

Damoodur, the physical conditions and drainage of which may have undergone a material change since the construction of the river embankment; but the disease is equally prevalent in other localities on the

This is not quite the fact; the southern banks have silted, and there is not the flow of water of former years.

opposite bank of the river where the country now remains in the condition in which it had ever been, and cannot have been so influenced. I refer to tracts included in the thanas of Selimabad on the left, and Roynah, Indoss, and Khundghose on the right bank of the Damoodur.

“The physical condition of the country around Burdwan city and suburbs has probably been much altered by railway and river embankments. Disease has decimated the place for three years, but the outbreak does not appear to have been in any way influenced by the altered condition of the tract, for sickness is hardly more prevalent in villages on the left, than in those on the right bank of the river, where the same obstruction to drainage and inundation from the causes mentioned does not exist. Other causes predisposing to disease, such as impure water, damp, defective conservancy, &c. are very general in Bengal where the disease is and where it is not. It attacks with equal severity

ec., the Banka.

villages on the banks of running streams where water-supply is good, and those in which it is most impure and unwholesome.

“With regard to food there is no reason for supposing that the population of Burdwan were in worse circumstances in this respect before the outbreak than they had ever been, for, with the exception of 1866, the crops had been good, and rice everywhere abundant.

“The rich and poor have suffered alike; but the former, from being placed in more favorable conditions, have fared better. In attempting to account for the unusual outbreak of fever in this district, too much importance must not be attached to

This is opposed to Dr. Smith's, late Sanitary Commissioner, observations.

I would rather say that the disease has attacked all alike, both rich and poor.

mere local insanitary conditions. The type of disease is intensified by them when it occurs in localities where they predominate. It may be said that, as a rule, disease manifests itself with most virulence, and is generally attended with the largest amount of mortality, when witnessed in localities in which insanitation, damp, and dirt are most apparent. This is not always the case, and in the history of the endemic now under report, it will be found that villages in which there has been the greatest amount of insanitation have not invariably suffered most; whereas other places in which the same insanitary conditions were less, or hardly at all apparent, have had severe visitations of fever.

“It is necessary to trace the disease through a series of years during different seasons under a variety of local conditions before a correct idea can be formed of the real causes which have tended to produce it. It is only by taking an equally comprehensive view of the subject that

Quite in accordance with my own observations in the cases of numerous villages, and I doubt not that Dr. Jackson, in his report on the present year, will confirm this statement.

a scheme sufficiently extensive to be effective can be entered into for its prevention or alteration.

“When other unfavorable conditions exist, such as packing and crowding of inmates in small huts, want of the ordinary precautions for the preservation of health, with reference to the use of pure water, nutritious food, clothing suitable to season, &c., it can only be said that people who are so circumstanced invite disease, and are in a condition peculiarly favorable for its development and dissemination.

“Apart from all those conditions, however, I am disposed to believe that some other influence is at work, the operation of which is not fully understood, for which changes are constantly occurring with reference to the state of soil, season, and water-supply; there must also be a tendency to change in the condition of the people.”

64. In opposition to, or in addition to this view, I offer no opinion. Theory has failed to suppress the fever.

Whatever the destructive influence which may have been at work on the past, we have now to deal with the future.

The sanitary action which has been taken as regards Burdwan under the sanction of the municipality may be described as follows:—
 Sanitary action taken in Burdwan.
 The collection and cremation of vast number of bones found lying on the banks of the Damoodur.

1st.—The introduction of a thorough system of latrine conservancy.

2nd.—And of a purer drinking water-supply into the river Banka and into the town.

3rd.—The cleansing of this stream and its future conservancy are under consideration only on account of the want of funds.

4th.—The cleaning and renovation of tanks.

Under the authority of Government dispensaries have been established, and the distribution of food and clothing to the sick freely sanctioned; and in this position we await the sickly season now approaching.

* * * * *

FEVER RELIEF OPERATIONS IN HOOGHLY 1872.

Dated Calcutta, the 30th July 1872.

RESOLUTION—By the Government of Bengal.

READ—

Letter No. 395, dated 18th July 1872, from the Officiating Commissioner of the Burdwan Division, submitting, with remarks, reports on the fever relief operations in the Hooghly District.

Also—

Extract (paragraphs 17 to 21) of letter No. 350, dated 2nd July 1872, from the Commissioner of Burdwan, forwarding the Annual General Report of the Burdwan Division for 1872.

The ravages of the fever in Hooghly have never been so wide-spread as in Burdwan, though the sickness has here also been very serious.

2. It is noticed that the epidemic at its first visitation attacked many large villages in the *east* of the district with excessive violence, but subsided in those parts as it spread onwards to fresh villages to the *west*, the fact that it raged with equal violence in tracts of perfectly distinct physical characteristics throws much perplexity over the problem of its real cause and origin. Of the two principal localities in which the disease is said to have held its ground, one is a tract of low country traversed by sluggish and partially closed rivers, affording very bad water; the other is an open sandy tract, traversed by a fine river of good water running in a sandy bed. These facts seem to suggest that the disease is not in the soil or in the water, but in some way unknown marches from place to place, not sparing localities least open to sanitary objections.

3. It is gratifying to learn that private charity is largely practised in this district, and that none need die from want of food. The effect of the fever is, however, manifest in the statement that many rice-fields remain ungathered for want of reapers.

4. As most of the badly affected villages will, under recent changes, be transferred to the Burdwan district, the Lieutenant-Governor will await the Commissioner's further report before passing on the proposals of Mr. Pellew, the Magistrate of Hooghly, in regard to the future arrangements for conducting the relief operations in the district.

5. At present the whole burden of supplying medical aid and medicines falls upon the provincial funds, no charges, save those for food-relief, being debited to the charitable funds raised by subscription. The burden upon the local Government is very heavy, and one which cannot probably be much longer sustained; but, as remarked in connection with the Burdwan report, no money considerations will induce the Lieutenant-Governor to withdraw any aid which is shown to be really required.

6. The acknowledgments of Government are again due to Dr. R. F. Thompson, the Civil Surgeon, also to Dr. J. A. Greene, Medical Officer of Serampore, for the very efficient services rendered by them in this district during the late epidemic.

No. 395, dated Burdwan, the 18th July 1872.

From A. ABERCROMBIE, Esq., Offg. Commissioner of the Burdwan Division.

To—The Offg. Secretary to the Government of Bengal, Judicial Department.

IN continuation of this office letter No. 367, dated the 6th instant, I have the honor to submit copies of reports No. 284, dated the 8th ultimo, and No. 342, dated the 11th current, from the Magistrate of Hooghly, reporting on the fever relief operations in his district. The epidemic fever first broke out in this district in the sub-division of Jehanabad, in which it prevailed with more or less violence since 1869. In the early part of 1871, when the relief operations in the districts of Burdwan and Hooghly were closed, the fever in the sub-division of Jehanabad had much abated, though at Jehanabad itself it still prevailed, and necessitated the continuance of the itinerant dispensary and the employment of an extra native doctor at the station,—*cide* report from this office, No. 89, dated the 10th April 1871.

2. Towards the end of July, the Magistrate reported that the fever in the sub-division had increased; and on the 14th August the entertainment of a compounder at Rs. 10 per mensem was sanctioned from this office, for deputation to the village of Boigoo. The Magistrate was also requested by Mr. Buckland to desire the Civil Surgeon to send the report which he had promised to submit after visiting the worst parts of the sub-division. In September the disease had apparently much decreased, and no special medical establishment was entertained during that month; but in November last the fever appears to have broken out with great violence in this sub-division, as well as in other parts of the district. The disease appears to have prevailed with the greatest virulence during the months of December and January.

The operations in connection with the distribution of food, stimulants, and clothing to the sick poor, were commenced in December after the receipt of the cheque for Rs. 500 applied for in this office No. 363, dated the 14th December last. The statistics of mortality submitted to Government show that the total number of deaths from fever in this district up to the 31st March last was estimated at 11,020, and that the mortality in the district was heaviest in December. The total amount expended on the special dispensaries is Rs. 2,948-12-4 up to May last; but as statements showing the expenditure in both the districts of Burdwan and Hooghly have already been separately

No. 361, dated 5th July 1872.

„ 362, „ 10th „

submitted to Government with this office letters marginally quoted, I need not here repeat the particulars in connection with the expenditure on account of food and medical relief in this district.

3. The Magistrate, in his account of the dispensaries, has omitted to notice the dispensaries at Singhoor and Kishtonuggur, two dispensaries which were opened from the Epidemic Relief Fund in the sub-division of Serampore. The native doctors attached to these dispensaries were deputed with medicines in December last, when the first outbreak of sickness was reported in the sub-division. The dispensary at Singhoor was closed some time ago; that at Kishtonuggur is still kept on.

4. The dispensary at Chandoor was opened in consequence of the people in its neighbourhood having had to resort to the dispensary at Eklokee, which is in the district of Burdwan. The conduct of the native doctors and others in charge of the special dispensaries seems generally to have been satisfactory; but the man in charge of this dispensary, Raj Coomar Bose, was relieved by native doctor Bluggobutty Churn Doss, in consequence of its having been discovered that the former kept no register of the attendance of patients at the Chandoor dispensary, and that the returns submitted by him were filled up by guess. I have requested the Magistrate to report if any improvement has taken place in the management of the dispensary since the arrival of the new native doctor.

5. It will be seen that the reports submitted by the Magistrate contain the suggestions which he has to offer for the conduct of operations for the relief of the sick and needy during the coming season. Before offering any remarks on the proposals of the Magistrate, I have thought fit to consult the Magistrate of Burdwan, as it is in the present jurisdiction of that officer that the majority of the proposed new dispensaries are situated. On receipt of the reply from Burdwan I shall again address the Government on the subject.

No. 284, dated Hooghly, the 8th June 1872.

From—F. H. PELLEW, Esq., Officiating Magistrate of Hooghly,

To—The Commissioner of the Burdwan Division.

IN reply to your letter No. 268, dated the 21st instant, forwarding copy of Government order No. 2039, dated the 13th June, I have the honor to submit a concise report on fever in the district of Hooghly from the time of its outbreak at the close of the rainy season of 1871 up to date.

2. In the beginning of November 1871 fever was reported as having broken out in thanas Hooghly, Bansbariah, Bullagur, Dhancakhally, Hurripal, Kishtonuggur, Bydebatty, Jehanabad, and Goghat. It also appeared, but less violently, in thanas Pandooah, Ghattal, and Chunderkonah, particularly in the neighbourhood of Khirpoy. At that time the following dispensaries were in existence in the district:—

Progress of fever, from November 1871, to July 1872.

1. Jehanabad	} In Jehanabad Sub-division.
2. Ghattal	

3. Ooterparah	} In Serampore Sub-division.
4. Serampore	...	...	...
5. Bassooree	...	...	...
6. Bydebatty	...	...	...

7. Hooghly	} In the Sudder Sub-division
8. Sootangacha	...	...	...
9. Dwabasme	...	...	...

3. The following special dispensaries were at once established at a monthly cost as noted opposite to each :—

Bullagur	Rs. 65	} In the Sudder Sub-division.
Dhaneakhally	65	
British Chundernagore	65	
Bally	65	} In the Jehanabad Sub-division.
Chunderkonah	65	
Singhoor	28	
Kishtonuggur	28	} In the Serampore Sub-division.

4. The sums placed opposite to each are the amounts originally submitted for sanction by the Civil Surgeon of Hooghly for the dispensaries in the Jehanabad and Sudder sub-divisions, and by the medical officer at Serampore for those in the Serampore sub-division, respectively. Subsequently, by reducing the travelling allowance of the native doctors in the former sub-divisions from Rs. 20 to Rs. 10 per mensem, the cost of those dispensaries has been reduced to Rs. 55 per mensem, and by adding a sum of Rs. 10 for contingencies, and Rs. 10 for travelling allowance in the Serampore sub-division (inadvertently omitted from his estimate by the medical officer at Serampore), a monthly expenditure of Rs. 48 for those dispensaries has been submitted for sanction.

5. As a temporary measure, also, in consideration of the urgency of the case, the sub-assistant surgeon of Jehanabad dispensary made over charge of that institution to the lock-up native doctor, and with a compounder on Rs. 10 per mensem established an itinerant dispensary for the relief of people in the villages round Jehanabad station.

6. In the month of December 1871 fever was still raging in thana Kishtonuggur, part of thanas Bydebatty and Hurripal in Serampore sub-division, and in thanas Jehanabad and Goghat of the Jehanabad sub-division, also in thana Dhaneakhally of the Sudder sub-division. It had, however, been somewhat reduced in violence, and in the remaining thanas of the district had almost ceased.

7. Since the month of December, the fever, whilst ceasing everywhere else, has tenaciously held its ground in two principal localities: one, the centre of the tract which lies between the Hooghly and Damoodur rivers, extending from Dhaneakhally and Hasnan to Kishtonuggur and Juggutbullulpore, and the other the tract of country on both sides of the Darkessur river, which borders on Burdwan.

8. The dispensaries at Chundernagore and Bullagur were consequently abolished under Government orders No. 978 of the 9th March, copy of which was forwarded with your No. 133 of the 16th idem, and at the same time the sub-assistant surgeon of Jehanabad resumed charge of the dispensary there, closing the itinerant dispensary; but on the other hand it was found necessary to open a dispensary at Hasnan in Dhaneakhally, under orders conveyed in your No. 234, dated 30th April 1872, and at Khanacool, in Jehanabad, under orders contained in your No. 978, dated 9th March, and this dispensary was afterwards transferred to Myapore, as reported in my No. 159, dated 2nd April 1872.

9. Subsequently, in consequence of the closing of the itinerant dispensary, it was found that the people to the north of the Jehanabad and Goghat thanas had not sufficient medical assistance, and under orders conveyed in your No. 264, dated 17th instant, a dispensary was

opened at Chundoor. Subsequently also, by the liberality of Baboo Nileomul Mitter of Allahabad, a dispensary has been opened at Bunderpore, in thana Hurripal, as per Government orders No. 1632, dated 18th April 1872.

10. Lately fever has broken out at Badinan, in pergunnah Chowmoha, in thana Hooghly. A native doctor has been deputed there with a sufficient supply of medicines. The establishment will cost Rs. 55, as shown below :—

				Rs.
1 Native Doctor	...	...	...	25
1 Compounder	...	...	...	10
Contingencies	...	...	...	10
Travelling allowance	...	...	...	10
				—
				55
				—

This special dispensary is under the management of Dr. Thompson.

11. At the same time a careful enquiry was made into the account of sickness still existing in the more out-of-the-way villages in Jehanabad and Goghat, the results of which are now before me, and the proposals based on these enquiries I shall give at the end of this report.

12. For relief purposes the following sums were disbursed :—

				Rs.	A.	P.
The Civil Surgeon of Hooghly was paid	...	...	...	628	7	6
Medical officer of Serampore	...	...	...	250	0	0
Deputy Magistrate of Jehanabad	...	...	...	50	0	0
Native Doctor of Myapore	...	...	...	10	0	0
Ditto of Bally	...	...	...	60	0	0
Sub-Assistant Surgeon of Jehanabad	...	...	...	100	0	0
Miscellaneous charges	...	...	...	27	10	9

Of this sum accounts have been furnished by the following officers :—

				Rs.	A.	P.
Deputy Magistrate of Jehanabad...	...	...	...	50	0	0
Sub-Assistant Surgeon of Jehanabad	...	...	...	100	0	0
Medical Officer of Serampore	...	...	...	76	0	0
Civil Surgeon of Hooghly	...	...	...	128	7	6
Miscellaneous	...	...	...	27	10	9

13. I now proceed to state what measures I think necessary for the conduct of operations for the relief of the sick and needy during the coming season.

14. In the first place, I wish to open four new dispensaries, one at Bakurpore, 8 miles north-east of Myapore in the north-east of Jehanabad ; one at Koergunge in the north of Goghat ; one at Goghat itself, and one at Ramjibunpore in the north of Chunderkonah on the borders of Goghat. The sick from the neighbourhood of these places are compelled at present to resort to Bally, Jehanabad or Akloky for treatment, and these places are somewhat distant. The police, the Civil Surgeon, and the Deputy Magistrate all agree as to the advisability of establishing these dispensaries.

15. Next, I wish that a sub-assistant surgeon may be placed in charge of all the dispensaries beyond the Damoodur to supervise the native doctors and superintend relief operations for the submission of accounts of which he should be responsible.

16. I do not now propose that another sub-assistant surgeon should be appointed for the country on this side of the Damoodur, as at present the number of special dispensaries is not so great; but I think it may become necessary to propose this hereafter if fever increases.

17. The Civil Surgeon and sub-divisional officer both recommend the appointment of a sub-assistant surgeon in the Jehanabad sub-division, as above proposed.

18. I also beg to propose that all the dispensaries in the district be placed under the charge of the Civil Surgeon of the district, Dr. Thompson. At present two of them are in charge of the medical officer at Serampore, who from want of local experience and local influence has found difficulties in procuring native doctors of good character. Dr. Thompson, from his long experience in this district, his acquaintance with the character of the resident native practitioners, his thorough knowledge of the geography and physical characteristics of the district, and the confidence reposed in him by the native zemindars and others, has peculiar advantages of which he makes the most. He is willing to undertake the extra responsibility, and I trust this proposal may be sanctioned.

19. I wish here to record my sense of the services rendered by the Civil Surgeons at Hooghly and Serampore, especially the former, in superintending dispensaries and personally visiting sick localities. Dr. Thompson has already received the thanks of Government on several occasions; but I can hardly state here adequately the advantage I receive from having an officer by me on whose judgment I can implicitly rely.

Statement showing the detailed accounts of the Money advanced for relief operations amounting to Rs. 1,800.

Name of officer who received advance	Amount advanced.	Amount disbursed, of which accounts submitted.	Balance in hand of the officers.	Amount in hand of the Magistrate
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Civil Surgeon of Hooghly	628 7 6	428 7 6	200 0 0	.....
Medical Officer of Serampore ..	250 0 0	76 0 0	174 0 0	.....
Deputy Magistrate of Jehanabad ..	50 0 0	50 0 0	.....	.....
Native Doctor of Myapore	10 0 0	.....	10 0 0	.....
Ditto of Bally	60 0 0	.....	60 0 0	.....
Sub-Assistant Surgeon of Jehanabad	100 0 0	100 0 0	.....	.....
Miscellaneous charges	27 10 9	27 10 9	.....	.....
Total ...	1,126 2 3	682 2 3	444 0 0	673 13 9

F. H. PELLEW,
Offg. Magistrate.

No. 342, dated Hooghly, the 11th July 1872.

From —F. H. PELLEW, Esq., Officiating Magistrate of Hooghly,
To—The Commissioner of the Burdwan Division.

IN reply to your letter No. 298 of the 14th ultimo, calling for further particulars in regard to the special report on dispensaries, special dispensaries established in the fever-stricken villages in this district, I have the honor to submit herewith an abstract of the operations of each dispensary and other particulars required by you.

2. This dispensary was opened on the 8th November 1871, and was placed in charge of native doctor, **Abdool Abad**, who worked as a native doctor attached to the Chinsurah Lock-Hospital. This dispensary worked in a satisfactory manner. The native doctor's conduct was good. On the decrease of sickness the dispensary was closed on the 29th February 1872.

3. This dispensary was opened on the 8th November 1871, and was placed in charge of native doctor, **Protab Chunder Dass**. He is a locally-entertained man, brought up by private tuition, can read and write English fairly, and had served as native doctor at the Chinsurah Amro Chattrra dispensary in 1866, and at Dhaneakhally special dispensary in 1869-70. The Civil Surgeon had frequent opportunities of visiting this institution, and he had every reason to be satisfied with his conduct and qualifications. The dispensary was closed, as the fever abated, on the 19th February 1872.

4. The sub-assistant surgeon and native doctor attended to the Hooghly Imambarrah Hospital; were also actively employed in visiting villages in and around the sudder station, giving medicines and medical comforts to the sick at their homes.

5. Dr. Thompson personally visited not only villages, but went into the homesteads of the people of all classes, and encouraged them to show their sick, enquired into their wants, and gave them clothing and nourishment with his own hand. The Deputy Inspector-General of Hospitals, and the Sanitary Commissioner, Dr. Payne, who visited this station, accompanied him on his rounds, enquiring into the cause of the fever; the people expressed themselves quite satisfied, and felt grateful for the benefit they enjoyed.

6. This dispensary was opened on the 7th November 1871, in charge of **Kristo Kissoore Gangooly**, a locally-entertained native doctor, who has certificates of previous good service in an epidemic hospital under Dr. Macnamara, and had charge of the Khanacool dispensary in this district during 1869-70. The native doctor is an intelligent young man and understands his work well.

7. This dispensary was opened in December 1871, and placed in charge of native doctor **Bhola Nath Chatterjee**, who has served with credit for many years as head compounder attached to the Hooghly Imambarrah Hospital. The native doctor is a painstaking young man,

and has served with great zeal and energy, so as to merit the approbation of the Civil Surgeon and myself. The dispensary is still in existence.

8. This dispensary was opened on the 8th January 1872. Native doctor Juggut Chunder Goopto had charge of it. He was brought up in the Bengalee class of the Calcutta Medical College, and was a private practitioner at Barrackpore. The sickness around this locality having greatly decreased the dispensary was transferred to Khanacool and subsequently to Myapore. The native doctor fell dangerously ill and was obliged to come away, leaving the dispensary in charge of the compounder in the middle of May last; the compounder conducted the duties during a short period satisfactorily. Native doctor, Essan Chunder Banerjee, was sent out to take charge of the dispensary in June last.

9. The Jehanabad itinerant dispensary was in charge of the sub-assistant surgeon of Jehanabad, Preumber Nath Mitter, who moved from village to village with medicines and distributed to the sick who could not move from their houses at villages around Jehanabad sub-division. The sub-assistant surgeon conducted his duties to the satisfaction of the Civil Surgeon. This itinerant dispensary was closed on the 14th March 1872 on the sickness abating.

10. This dispensary was opened on the 8th April 1872, and placed in charge of native doctor, Raj Coomar Bose. The working of this dispensary, I regret to say, has not at all been satisfactory, and the returns submitted by the native doctor are far from trustworthy. Locally-entertained native doctor Bhuggobutty Churn Doss was sent out to relieve native doctor Raj Coomar Bose.

11. This dispensary was opened on the 15th April 1872 in charge of locally-entertained native doctor Aughore Nath Bose. He was formerly attached to the Hooghly Imambarah Hospital, and served as a native doctor on special duty. He is a hard-working man and well-up to his work. The sickness in the locality has not as yet decreased; it is therefore proposed to continue it.

12. This dispensary was opened on the 1st June 1872 in charge of native doctor Protap Chunder Doss, lately attached to the British Chundernagore dispensary. That native doctor reported that a large number of people had enlargement of the spleen, others had dropsical extremities.

13. A native doctor was also attached to my camp on tour of inspection through the district on two occasions. He was well supplied with medicines, and many patients took their medicines from the native doctors in the immediate vicinity of my tent, as reported in my letter No. 342, dated the 16th December 1871.

Statement showing the number of persons who attended the dispensaries, and who were relieved, cured, or discharged, or who are supposed to have died.

Name of Dispensary.	Total number of sick attended.	Cured, relieved, and discharged.	Supposed to have died.	REMARKS.
Dhaneakhally ...	1,8200	18,147	53	This dispensary has been opened on the 1st June 1872.
Bullagur ...	7,800	7,788	12	
Hasnan ...	4,500	4,422	78	
Badman ...	570	570	.....
British Chundernagore ...	2,840	2,830	4	
Jehanabad ...	17,703	17,521	182	
Myapote ...	4,950	4,960	.....
Bally ...	16,504	16,497	7	
Chundoor ...	14,110	14,106	4	
Kishtonuggur ...	3,143	3,115	28	
Singhoor ...	2,663	2,658	5	
Total ...	92,983	92,610	373	

F. H. PELLEW,

Offg. Magistrate.

Extract from the Commissioner's General Report for 1871.

PARA. 17. *Hooghly*.—In Hooghly the state of the public health was very unsatisfactory. When the epidemic fever first visited this district, it attacked many large villages in the east of the district with excessive violence, which gradually abated, and after several years those villages were left with their population much reduced, and many of the survivors a prey to chronic attack; but the mortality had almost ceased. The epidemic gradually spread westward, but still preserved the same characteristics.

18. In 1869 and 1870 Myapote, Jehanabad, Hat Bussuntpore, and a few other large villages in the north-west, were attacked by the fever. The mortality in these places was very great. It was hoped, however, that the fever having crossed the district from east to west, would leave this part of the country and die out.

19. Last year the fever appeared in a slightly milder form but still of a wasting and mortal character. At the end of September it spread all over the district, and though it speedily diminished after the setting in of the cold weather in many parts, it has tenaciously held its ground in two principal localities,—one, the centre of the tract which lies between the Hooghly and Damoodur rivers, extending from Dhaneakhally to Kishtonuggur and Juggutbullulpore, and the other, the tract of country on both sides of the Darkessur river, which borders on Burdwan.

20. These two tracts differ much from each other in their physical characteristics: the former is a somewhat low country, traversed by sluggish and partially closed rivers affording very bad water; the latter is an open sandy tract, traversed by a fine river of good water running in a sandy bed. Throughout these two tracts every village has a few cases (from 5 to 20) of fever; the deaths are few in each village, but very numerous over the whole affected tract: and owing to the scattered

nature of the visitation, and its mild character, compared with the very deadly character of the fever in former years, it is difficult to provide medical aid to the sufferers without incurring an almost impracticable expenditure. This difficulty has partly been met by making the native doctors in charge of dispensaries more or less peripatetic. At the same time great care is taken that the dispensaries are located as much as possible in the centre of the affected tracts.

21. The Magistrate remarks that the laboring classes have chiefly suffered of late years. In many villages the survivors are almost destitute; old men and old women, whose families have all died, have been met with on several occasions by him. As a rule, however, there is nothing like starvation, and the funds provided for relief purposes have been ample to meet all the cases which have come to notice. Private charity is largely practised, and no man need die for want of food who has strength to go and ask for it, or who has relations whom he can send for the purpose. The sickness has told on the excise revenue, and is also shown in relinquishments of land by cultivators. Zemindars in Jehanabad have assured the Magistrate that they have paid more money as Government revenue than they have collected from their ryots, and he has noticed many fields of rice lying ungathered because there were no reapers.

FEVER RELIEF OPERATIONS IN BURDWAN 1872-73.

Dated Calcutta, the 20th March, 1873.

RESOLUTION—By the Government of Bengal, Judicial Department.

READ—

A memorandum, No. 89A, of 27th February, 1873, from the Commissioner of Burdwan, transmitting a copy of a report from Mr. C. T. Metcalfe, Magistrate of Burdwan, on the state of the fever in that district during December, 1872, and January, 1873, together with a copy of Commissioner's reply thereto.

1. Excepting the thana of Selimabad and a portion of the Jehanabad thana, it appears that Mr. Metcalfe has, during the two months of which his report treats, visited the whole of his district. The report he now forwards is by far the most satisfactory yet received. The Lieutenant-Governor notices with pleasure that in almost all parts of the Burdwan district the epidemic has much abated, whilst in Culna and Cutwa it is spoken of as a thing of the past. In the immediate vicinity of Burdwan itself, fever appears to be still lingering, and it is a matter of regret that in some of the villages towards the Beerbhoom borders the epidemic is still prevalent. The villages of Palta and Kaloerie are spoken of as most severley affected, and it is with grave disappointment that the Lieutenant-Governor remarks on the conduct of the

zemindars who refused to shelter dispensaries at those villages, and of the native doctor at Palta, who is reported to have neglected his work so seriously. The attention of the Inspector-General of Hospitals will be called to this native doctor. There is reason to fear that fever has made great advances in Beerbhoom during the last season. His Honor desires that the Commissioner will report very specially on this point without delay.

2. His Honor would also be glad to be informed whether anything can be done towards improving the sanitation of the Kczechat and Godda villages. The Commissioner might perhaps be able to induce the zemindars to do something towards their improvement. It is worthy of notice, however, that in these villages nutritious food is said to have enabled the people to resist the attacks of fever in spite of the filthy condition in which they live.

3. In his 4th paragraph, Mr. Buckland recommends that dispensary operations shall be contracted. The Lieutenant-Governor will be glad to see this done, but cautiously. The Commissioner should make every effort to get permanent dispensaries established under the new rules, that the district may be well supplied with medical aid when the special operations are at an end.

4. His Honor would take this opportunity of very specially thanking Mr. Metcalfe for his zealous and courageous efforts during the last two years in connection with the fever relief and supervision.

No. 18P, dated Burdwan, the 16th February 1873.

From—C. T. METCALFE, Esq., Magistrate of Burdwan,

To—The Commissioner of the Burdwan Division.

I HAVE the honor to submit a report on the state of the fever within this district for the month of December, 1872, and January, 1873.

1. Since my last report was submitted, I have travelled over the

BOON-BOON CIRCLE.	
<i>Dispensaries.</i>	
Goitunpore.	Narainpore.
Nollah.	Adrah.
Debburpore.	Uboorshee.
Jobleey.	Gulshee.
Gala.	Kannoo.
Shongshur.	Jamtara.
Tassoollee.	

greater part of the district. Leaving Panceoghur, I first journeyed south to Soonamookhi. I found here no regular epidemic prevalent, but still a good deal of sickness. From Soonamookhi to Dhon-simla along the high range the country is comparatively free, but in the villages of Narainpore, and neighbouring villages bordering on the river in the lower land, there has been a good deal of sickness. In the villages I visited I found many suffering. There were two dispensaries in this tract dispensing medicines.

2. From Pattroshaire I visited Kishtonuggur, where there was then an outbreak of cholera, to deal with which a local compounder and a locally-entertained native doctor were employed.

3. I next visited the tract lying on the western limits of Indas.

JEHANABAD CIRCLE.
Dispensaries open.

Shadipore.	Bally.
Indas.	Hajepore.
Kurshindey.	Myapore.
Roynah.	Gotan.
Arre.	Choto Boinal.
Deculgram.	Pattah.
Aklaky.	Meerpore.
Kendore.	Kayur.
Bhatoor.	Jehanabad Govern-
Kamarpookar.	ment Dispensary.

At Indas itself there was a good deal of fever. I found many sick close to the dispensary who had never, according to their own admissions, sought medical aid. From Indas I went to Kotulpore. The country about here is comparatively healthy, as apparent in the looks of the villagers, not but that there is fever, but not *the* fever. In other words, the fever prevalent in this thana is of a much milder type. The cases are fewer, and there are fewer deaths. All up the banks of the Darkessur the same condition prevails. The people healthy, with here and there a village particularly suffering.

4. Wherever I halted it was the same answer—the fever is much less. We have not the same fever as further east.

5. Before leaving this part of the district I procured as many fairly authenticated instances of persons who had contracted fever by journeying to Jehanabad on business connected with our courts as I could obtain. This formed the subject of a report to the Commissioner, and the enquiry originated from a statement in the columns of the vernacular press. The official medical report for this sub-division based on figures was, that in the middle of December, the number of patients had increased, and were in excess over those of November.*

Adra	... 47 sick.
Poornogram	... 125 "
Mohra	... 70 "
Bochigram	... 140 "
Shondah	... 41 "

In thana Ausgram he gives seven villages with sick over twenty, of which the worst are—

Dinnonathpore	... 40 sick.
Mowkhora	... 90 "
Diguagore	... 240 "

In thana Sonamookhi he gives the two unhealthiest villages to be—

Sonamookhi	... 178 sick.
Population 8,000.	
Pattroshaire	... 250 "

Sickness has to a certain extent prevailed in the villages on the Adjai, but I could find nothing like the broken health of the more afflicted parts. The villagers were as a rule healthy.

7. I spent three days at Shambazar and from there, taking advantage of a good road, marched along the borders of the two districts† to Bulpore. Near this place I found in several Beerbhoom villages traces of hard and bad times for the residents. The Sanitary Commissioner is at present engaged in enquiring into this locality.

8. The first Burdwan dispensary on the eastern border of Beerbhoom is Palta. All round this dispensary the fever has been severe, and in some places is still very bad. The native doctor in charge was clearly a shirker, and not done his work.

9. I found that the zemindar's agent rather obstructed than assisted the dispensary. In the catcherry

This lies in the Mungleote circle.

Dispensaries open :—

Chanuck.	Palta.
Dinnonathpore.	Shor.
Mahatah.	Pogram.
Dosgram.	Mungleote.
Arrore.	Kalikapore.

† Beerbhoom and Burdwan.

there was plenty of available space, but the agent would not give up even a corner, or assist with a table, or an almirah, or even a box. Some Mahomedan aymadars had sheltered the doctor and his medicines, giving up the lower part of a mosque for this purpose.

10. Within two miles of Palta lies the village of Kooloole. Here I found the people generally sick and miserable. The zemindar's son ill, as well as other inmates of the house, and yet when I proposed to them to send them a native doctor if they would locate him in the only decent house (and away from the zemindar's house), they refused point blank to allow the use of the place for a dispensary.

11. The sickness in this part diminishes as one approaches Cutwa, and whatever figures may show, the diminution of the fever is clearly an ascertained fact. To the east of Cutwa at Kalkapore there was an attendance of about 170 per diem, and several very weakly cases I saw on the road.

12. I passed several days between Kalkapore and Poorbustholee. The fever was spoken of as a thing of the past. New houses are springing up in place of the old, jungle is being cut down, new ryots are coming in and squatting; I am not speaking of one place only, but of a line from Poorbustholee through Samoodagur to Culna. A beat for a leopard and some pigs led me into the villages south of Patulee, viz., Ookhra, Sarangapore, Bissorumba, Sibiparah, Dhutpara, Nimdaha, Doobrajapore, all of which villages had suffered from several years of epidemic. The people, although complaining of the growth of jungle and destruction to their cultivation by pigs, also spoke of the fever as having passed and gone.

13. From Culna I marched through Chowghoriah and Satgatehee towards Burdwan. The nearer I came to Burdwan the more fever cases I passed, while the larger tracts of uncultivated land pointed to the diminished population.

14. I have yet to visit and see the state of Jehanabad and Selimabad thanas; but with these exceptions I have been the entire circle of the district, and I nowhere see the misery or the sickness of last year.

15. In the Burdwan circle the daily average sick at the latter end of November numbered 1,983.20; for the week ending November 30th the figures were 2,146.4, showing an increase of 163.20; for the week ending 7th of December it was 2,076, showing still an increase of 92.80 in the 14 days, but a decrease of 70.40 when compared with the previous week. There are 12 dispensaries open in this circle.

In the town and without the limits of the municipality the following dispensaries are open :—
Beldangah, Tickerhaut, and Kanchun-
nugoi.

At Kajcerhaut the daily average had increased in the earlier part of December from 231.11; in November to 256.14. At Kanchun-nugore the daily average at end of November had fallen to 211.

16. The Civil Surgeon, reviewing the state of public health, observes that while the average sick attending at the latter end of November showed a daily decrease of 198.90, there was a still further

daily decrease in the first week of December of 386. On the 7th December the figures of the daily average stood thus:—

Burdwan circle	...	...	...	2,076
Bood-bood „	...	...	...	2,113
Munglecote „	...	...	...	1,377.20
Jehanabad „	...	...	...	2,265.40
				<hr/>
				7,829.60

In the whole district the daily average sick for the week ending the 21st December was 7,753.50; for the week ending 31st December 7,112.80, which shows a decrease of 610.70; for the week ending 7th January it was 7,055.60, which shows in the fortnight a still larger decrease of 698.00.

17. The following table shows the dispensaries in each circle, the attendance of which averages more than 100 per diem:—

Burdwan.

Beldangah ...	...	218.50	Bamnah ...	...	166.80
Hchalabazar ...	...	177.50	Kanchunugore ...	...	179.40
Koormon ...	...	131.0	Katrapottah ...	...	218.20
Jabon ...	...	109.10	Jowgram ...	...	149.20
Pamrah ...	...	140.10	Samouti ...	...	170.20

Four dispensaries with attendance under 100:—

Bood-bood Circle.

Gulshee ...	...	112.10	Nollah ...	...	100
Jooblay ...	...	101.70	Baghar ...	...	100
Goitempore ...	...	120.40	Mahachandah ...	...	112

Eight dispensaries with attendance under 100:—

Jehanabad Circle.

Gotan ...	...	319	Gourhatty ...	...	314.50
Digalgram ...	...	122.50	Jamalpore ...	...	364.40
Akloky ...	...	220.70	Hajeeepore ...	...	232.80
Paitah ...	...	156.70			

Seven dispensaries with attendance under 100:—

Munglecote Circle.

Channick ...	...	294.10	Pogram ...	...	109.20
Arrore ...	...	110.40	Munglecote ...	...	158
Shore ...	...	195.70			

18. These figures I think look hopeful, particularly when it is known that the greater part of the patients are only children, and a still further decrease may, I think, be looked forward to month by month.

19. From the supervising medical officer's reports I have extracted the following:—

Extract from Report of Baboo Dinobundhu Dutt.

“Visited Kajeehaut and Godda. Both villages have several dirty tanks overgrown with weeds, the water possessing very offensive smell, dense bamboo clusters on the sides, strong smell of fæces on the

sides of the tanks. The tanneries gave an offensive smell to the localities, so much so that one could not remain for any time without feeling some nausea. One fact, however, is noteworthy, viz., that the Chamars or tanners, both males and females, enjoyed good health notwithstanding all the insanitary conditions abovementioned."

20. This class lives comfortably, beef forming part of their diet. This single fact is proof that want of sufficient nourishment has a great deal to answer for in the effects of the fever upon the miserable creatures lately shown to the Deputy Inspector-General on his visit.

No. 207T—68A, dated Burdwan, the 27th February 1873.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,
To—The Magistrate of Burdwan.

I HAVE the honor to acknowledge, with thanks, the receipt of your No. 18P, of 5th instant, with its enclosures (herewith returned), reporting on the state of the fever in district of Burdwan for the months of December 1872 and January 1873.

2. There has been some delay in disposing of this report, partly on account of my absence on tour at Midnapore, and partly owing to the delay in my office in putting up the correspondence referred to in paragraph 5, which emanated from my verbal request on information received by me at Bankoora; but this delay has not been of so much importance, as it has enabled me to bring the letter to Burdwan, and to obtain from you a further confirmation of the satisfactory information given by you, which is also supported by the statements which we have heard to-day from Dr. Jackson, the Sanitary Commissioner, who returned to Burdwan this morning on the completion of a lengthy tour.

3. It is very satisfactory to find that the fever is at length really abating, or, if I may use a different form of expression, that it is beginning to wear itself out. For some time it has appeared to me that the fever is most correctly described by comparing it to a fire which has seized upon certain inflammable materials, which it has consumed with more or less violence according to the localities in which they were placed, it being almost impossible, in certain places and under certain conditions, to do anything to rescue these materials from the consuming element; where the fever has attacked the inhabitants of villages overgrown with jungle, full of foetid matter, and teeming with everything pestilent and abominable and prejudicial to health, it has been a matter of impossibility to rescue the already diseased and enfeebled victims from the virulent attacks of this new and formidable form of disease.

4. I am glad to hear that you now propose, with the assistance of the Sanitary Commissioner and the Civil Surgeon, to reduce the number and cost of the dispensaries where the number of the sick who come for relief is not sufficiently large to justify the maintenance of an independent dispensary. Where dispensaries are still to be maintained, an endeavour should be made to give them a local basis of support, arising from subscriptions and contributions obtained locally. It is but right that those who aid themselves should have a preference over those who will not even afford shelter to our native doctors and their medicines,

or who will not really trouble themselves to take advantage of our endeavours to give them relief.

5. It is satisfactory to see that in the week ending 7th January, the daily average of attendance at the dispensaries had come down to 7,055, although these figures may not really show the true number of those who suffer from the fever and its attendant consequences. In fact, if fever still prevails in 2,356 out of the 4,936 villages in the district of Burdwan, as shown in the 22nd paragraph of your report, the number of sick in each village would be so small as to make it unnecessary to continue our measures of relief. In a population exceeding two millions and a quarter, a daily average of 7,000 sufferers from fever would be very insignificant. But in all probability there are many more persons suffering from the fever and its effects than present themselves at the dispensaries for relief; and on the other hand, there are probably many villages in which there is not in reality any present existence of epidemic fever, although there may be a few persons suffering from common fever, or from the sequelæ of attacks of epidemic fever.

6. The most favorable and encouraging evidence of the fact, that the fever has worn itself out, is to be found in paragraph 12 of your report, which shows that the country from Poorbostulee through Samoodergur to Culna is now considered to have recovered its healthy character. This part of the district was attacked in 1861-65, when the fever first stepped across the Bhagirutee in its migration from Kishnaghur, and devastated the villages on this side of Burdwan. In these villages you observe that the fever is now spoken of as a thing of the past; new houses are springing up in place of the old; jungle is being cut down; new ryots are coming in and squatting. I trust that a similar recuperative power of health may show itself in the other parts of the district which have been subject to the later invasions of the fever. I anticipate great results from the measures which you have so successfully carried out for supplying the town of Burdwan with fresh water and proper sanitary conveniences.

FEVER IN BEERBHOOM.

Dated Calcutta, the 25th March 1873.

RESOLUTION — By the Government of India, Judicial Department.

READ —

A letter, No. 116 of the 13th March 1873, from the Commissioner of the Burdwan Division, reporting on the epidemic fever in the district of Beerbhoom.

1. THE Lieutenant-Governor notices with very great satisfaction that in the Beerbhoom district, as in Burdwan, the epidemic fever has now considerably decreased.

2. The disease has been most severe in the south-east of the district, towards the river Adjai, and seems to be now making its way to the north and north-east of the

district. The country is reported to be generally dry, with no excess of stagnant water as in Burdwan, while the fever has been equally virulent on alluvial, clay, sand, or laterite. It would appear from this that neither the character of the soil nor humidity have any special relation to the existence and progress of the disease, and this makes the causes of this fever more mysterious than ever.

3. It is not, however, surprising that when once the fever has taken hold it should continue to retain its power, considering the very filthy state in which many of the villages are reported to be. The Magistrate should do what he can to induce the zemindars and people to cleanse and improve the sanitary condition of their villages. He must also watch very closely the progress of the disease, and see that dispensaries are opened wherever they are considered to be absolutely necessary, and that they are properly worked.

4. The Inspector-General of Hospitals will be desired to settle, in communication with the Commissioner and Sanitary Commissioner, how far the medical staff employed in Burdwan may be safely reduced, and to see that Beerbhoom and the tracts at present affected are properly cared for.

No. 116, dated Burdwan, the 13th March 1873.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,

To—The Offg. Secretary to the Government of Bengal, Judicial Department.

WITH reference to paragraph 4 of your No. 5420 of the 7th December last, I have the honor to submit a rough sketch map which has been prepared by Mr. Tottenham, late Magistrate of Beerbhoom, showing the portions of the district which has been visited by the epidemic fever. The parts affected by the fever have been coloured darker than the rest of the map, and the darker the shading the worse, it is to be understood, the fever has been.

2. Mr. Tottenham states that the fever has not confined itself to localities in which the nature of the soil is similar, but it has been almost equally virulent on clay, sand, and laterite. In the extreme south-east of the district near the river Adjai, where the disease has raged violently, the soil is alluvial. At Soopoor, where it has been, and is still causing excessive mortality, there is a great admixture of sand. At Alambazar the laterite formation prevails, as also at Soorool and in the neighbourhood of Singaon, east of Bhulpore, which has been specially stricken by the fever. In other parts again of Kusba and Doobrajpoore the soil is clayey, but the fever has been very bad in some of the villages in these thanas. At Munguldihi and the neighbouring villages on all sides in the eastern portion of thana Doobrajpoore which has been seriously affected this season, the soil is very clayey.

3. The state of the villages generally is such that the fever having once taken hold of them, it is not a matter of surprise that it should cling to them and assume a very bad type. Many of these villages are badly situated on the lowest level instead of on the top of the undulating and rising ground, the sites having probably been selected as being nearer to water. The villages generally are badly ventilated and extremely filthy, with pits full of solid and liquid manure at the very doors of the people. This state of things has probably existed for generations, and it is to be observed as much in villages untouched by the epidemic as in those where the fever has been most devastating. But although this unwholesome condition of the villages can hardly be said to be the cause of the disease, it fully accounts for the tenacity with which the fever clings to large villages of which it once takes hold, and in which the constitutions of the inhabitants have been previously impaired from the conditions under which they have been born and lived all their days.

4. The water channels in the affected parts are for the most part rapid streams during the rains, and almost dry at other times; they run generally eastward and southward, finding their way eventually into the Adjai or the Bhagiruttee. The district on the whole is a dry one, and during the past season, especially from the scanty rainfall, there has never been any excess of water lying undrained in the villages and fields.

5. The occupations of the people are chiefly agricultural, though they are weavers by caste in very many of the villages. The native weaving trade having been much depressed in modern times, these people now live in many cases as much by agriculture as by the practice of their own art. Domes and other low caste men are very numerous; and it is worthy of note that whereas in the previous year the low caste people and the female sex enjoyed a comparative immunity from the fever, it has during this season attacked all classes and both sexes indiscriminately.

6. I am glad to be able to add that the fever has now considerably abated in all parts of Beerbhoom, and the number of fresh cases is now small. In Soopoor there are still many persons suffering, and I fear that it will be long before they will cease to need careful medical treatment. I have directed the Magistrate again to address purwannas to the zemindar of Soopoor and his agents, and the headmen of the village, requiring them to carry out all reasonable sanitary improvements for the sake of their own health and life, but it is greatly to be feared that, in the absence of any such legal enactment as I have recommended on this subject, the people will do nothing to purify their villages.

7. Dr. Jackson, the Sanitary Commissioner, has made a careful inspection of the fever tracts of Beerbhoom, and if he has submitted any report to Government about it, I should be glad to see a copy. He was not satisfied with the native doctors and dispensaries which had been established, and it is much to be regretted that we had to make use of such incompetent persons in Beerbhoom; but the supply of native doctors had been almost exhausted before Beerbhoom made known its wants. Dr. Jackson has promised to draft some competent native doctors from Burdwan, where the number of dispensaries and

of the native doctors is being reduced. As there is every reason to fear that the epidemic fever is marching north or north-east through Beerbhoom, it is very desirable that proper and timely measures should be organized to give such succour as is possible to the people. If they could be persuaded to clean their tanks and purify their villages, it would be much for their benefit; but they would rather risk death than do this.

8. The report and the map showing the places affected by fever in the district of Midnapore will be submitted as soon as it is received from the Magistrate, Mr. Harrison.

FEVER IN MIDNAPORE.

No. 2168, dated Calcutta, the 18th June 1873.

From—A. MACKENZIE, Esq., Junior Secy. to the Govt. of Bengal,
To—The Commissioner of Burdwan.

I AM directed to acknowledge the receipt of your letter No. 257, of the 28th ultimo, submitting an elaborate report from the Magistrate and Civil Surgeon of Midnapore regarding the prevalence of the epidemic fever in parts of that district.

2. The Lieutenant-Governor is much obliged to Dr. Mathew and Mr. Harrison for their clear and valuable report which shows that the fever has made considerable ravages in the part of Midnapore lying between the Cossye and Silye, and that some systematic attempts at relief are imperatively called for.

3. Dr. Mathew, the Civil Surgeon, proposes that, with a view to deal with the epidemic in its future ravages, nine temporary dispensaries should be opened, two native doctors being attached to each; and that a sub-assistant surgeon should be appointed to supervise the native doctors. If this cannot be allowed, the Magistrate would wish to have two dispensaries and four native doctors placed at his disposal, and suggests that a native doctor and medicines be sent to any place within the affected area where the people agree to pay half his salary. Before passing orders on these proposals, the Lieutenant-Governor would wish to have a report from the Inspector-General of Hospitals, to whom a communication has this day been made as to what amount of assistance he can actually give.

4. The Magistrate proceeds to make proposals for a wide distribution of quinine by various agencies. The

Lieutenant-Governor is disposed to accept these, but deems it right to obtain the opinion of the head of the Medical Department upon them in the first place. There is, first, the proposal to give quinine for distribution to the twelve native gentlemen named by the British Indian Association.

5. Then it is proposed to place a supply of quinine for sale at each police station and outpost at 20 per cent. below cost price. I am to say, with reference to this, that if quinine is to be sold, it should be sold at cost price, which is low enough compared to retail rate; gratis distribution to poor patients being made under proper supervision.

6. Mr. Harrison next proposes to give the schoolmaster and the patshalla gurus an ounce of quinine each for their own use and for that of their pupils, forbidding them to sell it, but permitting them to give it in charity to other indigent sufferers if they liked. The gurus are to understand that the supply would not be repeated, and only gurus in places attacked by fever would get it.

7. Mr. Harrison next wants to give a certain quantity of quinine to each private practitioner for gratis distribution among poor sufferers. The Lieutenant-Governor believes that none of them would distribute it gratis as Mr. Harrison hopes, and thinks it should only be given them at cost price.

8. Mr. Harrison's proposal for appointing a punchayet to superintend the distribution of quinine, and report every week the state of the fever, seems to the Lieutenant-Governor to be good, and is approved; so also is the proposal to distribute printed directions for the use of quinine.

9. The Inspector-General of Hospitals has been desired to favour the Lieutenant-Governor with an expression of his opinion on the above proposals about quinine, and to state how much can be made available for Midnapore.

10. Mr. Harrison objects to clearing jungle and tanks compulsorily in the affected villages. The Lieutenant-Governor, however, desires that if the state of things is so bad as described by Dr. Mathew, something should be done to cleanse the villages, and the Magistrate should try what he can do by persuasion.

11. Four native gentlemen only are named by Mr. Harrison as having done something for the relief of the distressed. It is not creditable to the land-owners of Midnapore that they should have done so little.

No. 257, dated Burdwan, the 28th May 1873.

From—C. T. BUCKLAND, Esq., Commissioner of the Burdwan Division,
To—The Secretary to the Government of Bengal, Judicial Department.

WITH reference to your No. 5420 of 7th December, I have the honor to submit in original a report No. 116, dated 9th instant, with its enclosures, from the Magistrate of Midnapore, regarding the prevalence of the epidemic fever in parts of the district of Midnapore. The enclosure is a map, which is well coloured, so as to show the different characters of the soil in different parts of the district, and to denote those parts to which the fever has extended its ravages.

2. Mr. Harrison's interesting report is so lengthy, and has been so long delayed, that I am unwilling to detain it, or to add to it unnecessarily. Mr. Harrison apologizes for the delay which has occurred, and attributes it chiefly to the late receipt of the report of Dr. Mathew, the Civil Surgeon, which he has now extensively incorporated in his letter. Dr. Mathew has entered at great length, and with much ability, into the history of the fever and its treatment, and other professional points, which will doubtless be duly considered by the higher authorities in the Medical Department.

3. I have several times visited all that part of Midnapore where the fever has broken out. Mr. Harrison has well described the characteristic features of this tract, which are in some degree referable to the great lines of Government embankments which run along the sides of the Selye and Cossye rivers. It must, however, be remembered that these Government embankments are an inheritance which the British Government received from its Hindoo and Mogul predecessors. Long before the British rule was extended to India these embankments were constructed, and gradually raised to a height which must have affected the level and drainage of the adjacent country. Under the British Government the engineers have endeavoured to strengthen and solidify these embankments, and to provide them with sluices, which, however, apparently seem still to be much in need of improvement. It must be also remembered that these embankments were in existence for more than a century before the first visitation of the epidemic fever to this part of the country.

4. In the fever-stricken villages of Midnapore, such as Ghatal, Nemtolah, and the outskirts of Dasspore, which I visited this year, the people and their surrounding circumstances are as similar as possible to what I have so often seen in the fever-stricken villages of Hooghly and Burdwan during the last four years. Dr. Mathew has described in forcible language the filthy and unwholesome state of these villages, in which the stench is so disgustingly offensive, that the natives who live there and are insensible to it, must have their senses differently constituted from mine. When the people saw me in the villages they came flocking for help, and insisted on taking me to their houses to see their sick women and their afflicted children, and with a great desire that the latter might be touched, as if there might be some virtue in a touch. Although I usually took a native doctor with me with suitable medicines, the villagers were very anxious for my manipulation of their spleens, and for my advice, which I am glad to find was given correctly to the

convalescents (to whom I tried to limit my practice), as I prescribed a milk diet, of which Dr. Mathew approves.

5. I regret to say that some of the native doctors, far removed from supervision, do not behave very creditably; but, as we have no one to substitute for these native doctors, we can only make the best of them. Dr. Mathew has reported correctly that I found it necessary to send out a head constable of police in charge of the native doctor at Ghatal, to see that he attended properly to the sick poor and did not attempt to take fees from them. The head constable was instructed to send to me special reports twice a week of his expeditions in charge of the native doctor, who, when thus strictly looked after, did some better service.

6. From the statement appended to the Magistrate's letter, it appears that from October 1872 to 31st March 1873, 24,007 persons were treated for fever, and only 236 died. I am afraid that these figures do not nearly represent the truth. Along the banks of the rivers, and on the edges of the villages, there were signs of many more funeral obsequies. But whatever the past may have been, it is for the future that provision must now be made, as there is too much reason to apprehend that the fever will make its re-appearance this year on the setting in of the rains.

7. The Magistrate and the Civil Surgeon have suggested that certain medical establishments should be placed at their disposal; but without criticising their proposals at present, I beg to suggest that it is for the Medical Department to give its opinion as to the necessity for employing them, and as to its ability to provide these establishments. I trust that even if only two or three native doctors are sent down to the fever tracts of Midnapore, as occasion requires, a special supervising officer, not below the rank of a sub-assistant surgeon, may be deputed to Ghatal to look after them and to see that they do their duty, and that they are well supplied with quinine and other medicines. I agree with Mr. Harrison that where the villagers agree to pay half the native doctor's salary, they should have a prior claim to the appointment of a native doctor.

8. If the Medical authorities do not object, I would recommend Mr. Harrison's proposals Nos. 4 to 8 to the favorable consideration of Government. The more co-operation that can be secured, the greater prospect there is of effective resistance being shown to the fever. A few pounds of quinine may be misused or made away with, but, on the other hand, many lives may be saved by its timely and fortunate use even in unskilled hands.

9. I regret to observe that Mr. Harrison, in his paragraph 36, is opposed to the compulsory clearance of jungle or tanks. I had understood that the districts of Kishnaghur and Baraset had obtained a comparative immunity from fever by the enforcement of sanitary measures of this description. When it is a question of life or death, the consideration of the public good should prevail over private interests. It is not possible that a native of this country should be more attached to his filthy tank and sweltering jungle than an English farmer is to his reeking dunghill or his midden; but the farmer has been taught that he must yield to the public good when the spread of typhus fever, or an alarm of cholera, occasionally arouses the British

community to the necessity of enforcing the sanitary laws which happily exist, although they too often and too long lie dormant, in England.

10. Finally, I beg to invite the attention of Government to the favorable notice made by Mr. Harrison in paragraph 37 of the conduct of Rajah Jotendro Mohun Tagore, Baboo Ajoodhya Ram Khan, Baboo Lall Behary Dutt, and Baboo Janokee Nath Mookerjee.

No. 116, dated Midnapore, the 9th May 1873.

From—H. L. HARRISON, Esq., Magistrate of Midnapore,

To—The Commissioner of the Burdwan Division.

I HAVE the honor to forward herewith the report on epidemic fever in Midnapore, called for in your letter No. 70T of the 20th December.

2. The delay in its transmission is due to the fact that Dr. Mathew's report, on which it of course in great measure depends, was only received by me on the 21st April. As the whole of the report ought, I think, to be laid before you, and as it is fatiguing to travel twice over the same ground, I have, instead of sending a separate report, incorporated his integrally in this letter. I have in all cases made it apparent what paragraphs are his, so that he may not be held responsible for any opinions not his own.

3. My report has also been delayed by the necessity of preparing another map—partly because I want to illustrate in it the physical divisions of the district stated below, partly because the map which Dr. Mathew was so good as to provide was so encumbered with names not needed for this report, and with separate colours for separate thanas, that it could not be utilized to convey a clear impression of the sanitary features of the district.

4. To understand precisely the circumstances of the affected area, (1) its physical characteristics and (2) the comparative density of the population should be clearly realized. The first characteristic feature of the district is the laterite soil extending over the north-west and north of the district; this is of course the highest land, and as the country there almost uniformly consists of alternative ridges and depressions the drainage is complete.

5. From this table-land, however, the district by no means slopes away regularly towards the south or south-east, as might be expected. Headed by the laterite near Midnapore town, a valley starts in an eastern or even north-eastern direction towards the Roopnarayan river above Koilah Ghât, which at its eastern end embraces, relatively to the surrounding drainage, the lowest land in the district, and almost absolutely the lowest.

6. It has long since been pointed out that owing to the embanking system, the rivers, when they once get into the low level plains of the delta, are no longer the depressions, but the elevations of the country: hence it is the simple truth to say that this valley is bounded by the range of the Cossye river on the south, and that of the Selye on the north. A little above Panchkoora the Cossye, as is well

known, was diverted some hundred years or more ago from its proper course, and carried southwards along what the people still called the *Nya Kuttan*, or new cut, by which it makes its way into the Huldee. Were it allowed to pursue the natural course which the levels of the country indicate, it would continue to be the boundary to this valley till it fell into the Roopnarayan above Koilah Ghât.

7. Almost opposite to this southward deflection of the Cossyo the Selye turns in a north-western direction, and thus the valley opens out on both sides, embracing the whole of pergunnah Chetooa (which is identical with thana Dasspore) on the north, and almost the whole of pergunnah Kassijora to the south.

8. Even here, however, singular as it may seem, the slope is rather towards the north-east than to the south-east; this will be understood in a moment from the single fact that the tides reach above Ghatal on the Selye, while they do not reach Panchkoorah on the Cossyo.

9. It naturally follows that in the rains this valley becomes more or less a lagoon. Even at the longitude of Nowadah it has been found impossible to maintain a road across to the Selye or to Ghatal, important as such a road would be; while a little lower down, *i.e.*, further east, notably in pergunnah Chetooa and round Ghatal itself, the people do not look to the autumn for their crop, but have introduced a vast system of irrigation in the cold weather, which is only feasible on account of the extreme depression of their country.

10. Though the species of valley described is immediately bounded by the embankments of the Selye and Cossyo, the general depression passes beyond these rivers and is found again on the other side. This is most conspicuously the case with the Selye, which forms a loop, the southernmost point of which is a mile north of Narajole. Within this loop the country lies very low up to the latitude of Keerpoy; while south of Nowadah the low-lying country extends along the line of the Kerai (a drainage khall over which the high level canal is carried by an aqueduct) down to Pinglah, and southwards till it mingles with the saline tract.

11. Dividing the district, as it may not inaccurately be divided, into (1) laterite, (2) alluvial, but littoral and saliferous, (3) alluvial and non-littoral, the latter may be regarded as forming a rough triangle, the base of which is the Roopnarayan from Tumlook to Ghatal and the apex the town of Midnapore—or, more accurately, a point some six miles south-west of it.

12. I next propose to show how the population of the district is distributed over these three areas.

The laterite thanas are—

		Area.	Population.	Per square mile.
Beenpore	...	467	74,271	159
Jhangram	...	169	45,560	269
Gopibullubpore	...	516	120,310	233
Gurbeta	...	437	145,264	332
Salboney	...	207	50,860	246

Border thanas, i.e., laterite alluvial.

Midnapore	...	361	172,672	478
Keshpore	...	229	108,929	476

Laterite littoral.

		Area.	Population.	Per square miles
Naraingurh	...	300	129,553	432

Littoral.

Dantoor	...	217	112,372	518
Roghoonathpore	...	126	51,579	433
Contai	...	226	122,857	541
Egrah	...	122	57,898	475
Puttaspoore	...	117	81,123	693
Blugwanpore	...	184	89,812	488
Kedgerce	...	75	36,003	480
Nundigram	...	158	108,827	689
Sottahatta	...	111	53,546	482
Muslundpore	...	111	64,188	578

Littoral alluvial.

Subbong	...	283	214,755	759
Tumlook	...	77	77,341	1,004

Alluvial.

Chunderkonah, three-fourths alluvial	121	106,480	880
Ghattal	91	102,742	1,129
Dasspore	104	136,359	1,311
Debra	109	110,747	1,016
Panchkoorah	164	163,915	999

13. The above figures show conclusively that the density of the population closely follows the character of the soil. The purely laterite thanas have a population varying from 159 to 332 per square mile, the purely littoral from 433 to 693, the purely alluvial from 880 to 1,311; this last being Dasspore, which, as already explained, is the pit of the alluvial section, while 880 is Chunderkonah, the northern portion of which is high ground branching off from the laterite and somewhat undulating, though not jungly or stony.

14. The mixed thanas strictly conform to the same rule, the laterite littoral showing an average population of 433 to the square mile, laterite alluvial of 477, littoral alluvial of 810.

15. Generally, therefore, the district may be classified into—

- (1) Laterite, with an area of 2,200 square miles and a population of 250 to the square mile.
- (2) Littoral, with an area of somewhat under 2,000 square miles and a population of 550 to the square mile, under which head I include all lands within 40 miles of the sea dyke.
- (3) Alluvial, with an area of 1,000 square miles and a population of 1,150 to the square mile.

16. It is only into a portion—but the most alluvial and the most densely-populated portion—of this latter section that the fever has yet spread; and if Dr. Mathew's account of its progress is carefully examined in the map, it will, I think, appear that, though in many respects capricious in its action, it has not yet passed into any other tract, while it has deflected from its more natural line of progression from

Hooghly and Jehanabad westwards, and chosen a southerly and south-westerly direction, preferring the alluvial soil, and more particularly the depressed valley in the centre of it.

17. It only remains to say that from the Cossye, as from a high level canal, natural channels, acting as distributaries, thread this valley between the two rivers; some of them joining the branches of the Selye, others serving as the streams for irrigating Dasspore in the cold weather. It has been frequently reported to Government on the irrigation side that in the cold weather the main branch of the Cossye is dammed up by a bund at Kapasdigree, in accordance with a prescriptive right of the zemindars, so as to conduct the water into these channels.

18. The natural drainage of this valley is north into the Seve through sluices, which, as Dr. Mathew states, are very defective, and west into the Roopnarayan, also through sluices, *not* south into the Cossye.

19. With this preliminary description of the character of the soil and population, I now extract Dr. Mathew's account of the premonitory threatenings of the epidemic previous to 1872:—

(1.) “Before proceeding to describe the outbreak of epidemic fever that has taken place in certain quarters of this district during the past year, I purpose to briefly allude to the health of the zillah, with reference to the prevalence of fever, during the period over which my residence extends.

(2.) “Shortly after my arrival here, in August 1869, I heard that a fever, closely resembling the epidemic which during that season was causing terrible loss of life in Burdwan, had made its appearance along the line of country lying between Chunderkonah and Ghatal (at that time a portion of the Hooghly district), but the disease spread no further during that season, and the health of that portion of the Midnapore district bordering on the above-mentioned line of country was very fair during the autumn and cold season of 1869.

(3.) “During the months of August, September, and October 1870, malarial fever was widely spread over the alluvial tracts of Midnapore. The country bordering on Hooghly suffered in common with other localities, such as Tumlook and the country forming the sea-board.

(4.) “I visited Tumlook and the surrounding villages in the October of that year, and found that the disease was nothing beyond an aggravation of the fever usually attendant on the rainy season. It caused little or no mortality, although numbers of those attacked suffered from enlargement of the spleen and the other sequelæ of intermittent fever.

(5.) “On my return from Tumlook the police reported that fever was very prevalent and fatal at Gurbeta and in the low-lying quarters of Bogree pergunnah; and, dreading that the epidemic fever which had just then broken out at Jehanabad had advanced to Midnapore, I proceeded at once to Gurbeta, and, after visiting several large villages in Bogree, I travelled to Ghatal, *via* Chunderkonah and Keerpoy.

(6.) “During the trip I saw many scattered cases of fever, but the type of the disease differed in no perceptible way from the disease I had seen at Tumlook, and I accordingly reported to the Magistrate

that there were no grounds for the alarming reports that had reached him regarding the state of the public health ; and as the cold season advanced those who had been attacked regained their usual health.

(7.) "No more was heard of the disease until October 1871, the police then reporting that fever had broken out and was causing many deaths at a place called Nowadah, a large village on the southern bank of the Cossye river, about 18 miles to the east of the sudder station.

(8.) "I visited the place early in November, and found that a fatal type of intermittent and remittent fever had broken out some two months before, and that out of a population of about 4,000 some 70 deaths had taken place.

(9.) "The surrounding villages, although subject to the same general insanitary influences, were comparatively healthy, although I now believe that the disease was more widely spread and fatal during the latter months of 1871 than was suspected at the time.

(10.) "I found two native doctors in practice in the place. They stated that the disease was at its height during the latter part of September and the first three weeks of October.

(11.) "They had seen several cases of malignant remittent fever, but this was during the first outbreak ; the type of the disease subsequently changing to the intermittent with the usual sequelæ.

(12.) "During the months of November and December the health of the people improved ; and when I visited the place early in the following January, I found that no deaths from either fever or its results had taken place for several weeks, and that the people had lost in a great measure that unhealthy and anæmic appearance which had characterized them two months before.

(13.) "Scattered cases of fever had occurred in the surrounding villages, and I was inclined at the time to believe that their immunity from anything like an epidemic invasion was due to the fact of their having a better water-supply from the adjacent river than the people of Nowadah, who used for drinking purposes the water of the filthy village tanks. A subsequent paragraph will, however, tend to show how untenable the theory of the fever-producing power of impure water was in this particular instance.

(14.) "About the end of November 1871 again the police reported that fever had broken out along the line of country bordering on Hooghly, and that it was raging with particular severity at Dasspore and the adjacent villages.

(15.) "I arrived at the Dasspore thana on the 3rd of December. I found that malarial fever had been prevalent for the last two months, that numerous deaths had taken place both in Dasspore and surrounding villages, and the people one and all declared that the sickness and mortality was far in excess of anything of which there was any record.

(16.) "During that trip I visited six large villages in pergunnah Dasspore, and I afterwards proceeded along the Selye river to Ghatal.

(17.) "From enquiries instituted there and in the villages surrounding, I came to the conclusion that the epidemic fever which had prevailed at Jehanabad had advanced to the villages surrounding Ghatal, and was from thence spreading along the river-banks to Dasspore.

(18.) "I was greatly struck on this occasion by the unequal incidence of the disease—not only in different villages, but in different houses in the same village; some households suffering severely, while others, as far as could be judged, under precisely the same circumstances, escaped altogether.

(19.) "It is noteworthy that during the autumn of 1871, Tumlook pergunnah and that quarter of the district forming the sea-board was remarkably free from all forms of malarial disease, and the same remark applies to the laterite country, which may be said to form roughly about one-third of the area of the entire district."

20. It will appear from the foregoing account that the fever at first made a sort of attempt, such as it still continues to make, to extend in the natural direction westwards to Keerpoy, Chunderkonah, and Gurbetah—the former alluvial, though high alluvial; the second on the edge of the laterite, though itself on alluvial soil; and the third in the middle of the laterite, though low-lying and surrounded by cultivation—but that it failed to take any serious hold of those places, and then struck southwards into the low-lying, densely-populated tracts of Dasspore.

21. Dr. Mathew thus continues the narrative for the year 1872:—

(20.) "I now proceed to describe the outbreak of epidemic fever of the autumn of 1872.

(21.) "During the first week in September the police reported that fever had become very prevalent and fatal at Narajole and in several of the adjacent villages.

(22.) "A glance at the accompanying maps shows the situation of Narajole on the banks of a narrow stream which connects the Selye and Cossye rivers. On the southern bank of this stream are situated the large and scattered villages of Bhowanipore, Herratollah, Patna, Singaghur, &c., and still further to the southward lies the large pergunnah of Sharpore; and attention is directed to these localities, as it was there the disease raged in a very deadly form from the very first.

N.B.—The general prevalence of dengue fever much impeded in getting correct information, as all the fever-stricken places at first believed they were visited by dengue.

There are grounds for the belief that the disease had been very prevalent during the month of August, and that it was not until many deaths had taken place that the attention of the authorities was directed to the matter, or indeed that of the people residing in the locality.

(23.) "Before the end of October, reports were received from the police that malarial fever was rife and fatal within the jurisdictions of the Chunderkonah, Ghatal, Debra, and Dasspore police stations. Within the jurisdiction of the latter is the town of Narajole and the villages above alluded to.

(24.) "It will be thus observed, on referring to the map, that a considerable tract of country was under the influence of the epidemic, but the incidence of the disease was irregular both as regards its prevalence and fatality.

(25.) "As a rule, the villages in which the greatest mortality took place were those where the disease prevailed during the previous years, *i.e.*, the villages surrounding Ghatal, Dasspore, and its vicinity.

(26.) "An exception to this, however, is to be found in those villages near Narajole, where, as beforementioned, the disease was more prevalent and deadly than in any other quarter of the district, and yet there is no evidence to show that there was any unusual prevalence of sickness in these places during the year 1871.

(27.) "It will be observed that the villages of Bhowanipore, Herratollah, &c., are separated from Narajole town and bazar by a narrow stream. There was no very marked difference in the sanitary condition of those places. Perhaps if anything Narajole is less cumbered by jungle and the houses less crowded, yet the difference in the incidence of the disease is very marked.

(28.) "On the 7th of November 1872 I visited 22 houses in the village of Bhowanipore; two months previous to my visits they were occupied by 164 people, and of those 90 were ill at the time of my visit and 41 had died. In Narajole I visited 69 houses, and found they were occupied by 325 people, and of these 132 were ill and only 12 had died.

(29.) "Many other instances could be cited tending to show how eccentric the disease has been in its progress, and I will allude to one other.

(30.) "It will be remembered that the village of Nowadah suffered severely in 1871, and that during that season the smaller villages in its vicinity, on both banks of the Cossye river, suffered hardly at all; yet during the past season there was little or no sickness in Nowadah, but the surrounding villages had a severe visitation of fever.

(31.) "It is to be hoped that they may escape next year, and that the fever from which they suffered this year was only an aggravation of the disease usually attendant on the rainy season; but the persistence of the disease during the cold weather months, and the high rate of mortality, are suspicious; and, moreover, they lie in the track along which the disease appears to be advancing.

(32.) "It is a matter of no small difficulty to distinguish between the epidemic fever in the early periods of its invasion and the aggravated malarial fever which now and then attacks particular villages, and which seems to depend on local sanitary influences.

(33.) "The inhabitants of a large village named Pingelah were very much alarmed during the past season on account of the prevalence of fever. It is situated some eight miles to the southward of Debra, and is within the jurisdiction of the Subbong thana. I visited the place early in December, and carefully inspected the village.

(34.) "The country between it and Debra seemed fairly healthy, yet on my arrival at Pingelah I found that the people had been suffering much. I saw many cases of fever, and some deaths had taken place; but even then the worst was over, and before the end of December the health of the people had much improved, the very time when the mortality in the epidemic-stricken quarters was at its height.

(35.) "Ordinary malarial fever was widely spread over the district during the past season. The localities where it most prevailed will be seen by a reference to the map. The quarters of the district where there was no unusual prevalence of malarial disease is the laterite country and the country forming the sea-board.

(36.) "Tumlook, long regarded as the most unhealthy quarter of the district, was again healthy during the past season; and there is a popular saying amongst the natives, and on the whole a true one, that the only quarters of the district that escaped fever during the past season, were those where the soil is laterite and where the water is brackish."

22. Dr. Mathew's remarks, and still more his facts, so strongly support the position I have taken up, that the fever manifests a marked preference for, if it does not restrict itself to, low-lying, non-littoral, alluvial country, that it is but right to mention that he drew up his report without any consultation with me on this point, and was quite unaware of the special line of argument which I have followed.

23. My own observation of the course of the fever entirely supports what the Civil Surgeon has written, and it will be observed that it again failed to make serious progress towards Chunderkonah. This is the more remarkable because, as far as population alone is concerned, Keerpooy and Chunderkonah probably surpass any part of the district, except the sudder station of Midnapore, in density of population. Keerpooy, owing to the artificial arrangements of the chowkedaree unions in its neighbourhood, is split into sections, and therefore does not figure high in the census; but the villages grouped round Chunderkonah form the second largest town in the district, with an aggregate population of 22,000; and so far as this cause and insanitation are concerned, it should have readily yielded to the fever. It escaped, however, as did Keerpooy, with a moderate attack somewhat in excess of the ordinary malarial of the season, while the severe mortality, the traces of which struck one so painfully in passing through Dasspore and Narajole, was fortunately absent.

24. I am far from saying that Keerpooy and Chunderkonah will escape; they are only on relatively high ground, not on the laterite, and I fear that the fever showed some slight tendency to gain ground in 1872. All I contend for is that the epidemic seems to have experienced a marked check in this quarter, while it poured on in an unrestrained stream through Dasspore towards pergunnahs Narajole and Shahpore.

Dr. Mathew continues—

(37.) "The physical aspect of the country where the epidemic fever prevailed presents no features that call for very special mention.

(38.) "The affected line of country may be briefly described as a flat alluvial plain, formed of the combined deltas of the Cossye and Selye rivers, and intersected by numerous khalls, all of which are embanked. Connecting these rivers is the stream on which the town of Narajole stands, and to which allusion has already been made."

25. As the earlier portion of this report shows, I cannot agree with Dr. Mathew in his estimate of the non-peculiarity of the physical features of the affected tract. I think the north-east slope of the country, and the very low level of Ghatal and Dasspore, as illustrated by the height of the tides, well worthy of careful attention; but I need not again revert to the subject.

He continues—

(39.) “During the rainy season the country is under rice cultivation and is protected from inundation by a complicated system of embankments or bunds.
Embankments.

(40.) “These bunds are a characteristic feature of this part of the country, forming in many places the only high roads, and are no doubt of immense importance. I now allude to what are known as the Government embankments which follow the courses of the principal rivers.

(41.) “In addition to these are another series of embankments known as the zemindary bunds, and with reference to the utility of these structures some doubt in many instances seem to exist.

(42.) “It would appear that in former years each landholder made such arrangements for protecting his land from inundation as seemed to him most suitable, and running in almost every direction. These bunds certainly act as potent obstructors of the natural drainage of the country, and it is the opinion of the engineer in charge of the irrigation works in this district that many of them might be removed with considerable advantage.

(43.) “The Government embankments no doubt control the floods, and their utility, as far as I know, has never been questioned; but there can be very little doubt that they also obstruct the drainage of the country, and that to a very serious extent.

(44.) “The sluicing arrangements are lamentably deficient, and only allow surface water to flow off. They are much too few in number, and are, moreover, faulty in construction; their floors are in many instances above the level of the country, so that their utility for drainage purposes may well be questioned.

(45.) “I am given to understand that estimates for repairing and constructing no less than 60 sluices on one embankment alone have been prepared; and with a system of bunds that stand in need of such all-important alterations, I think it may be assumed that the surface drainage of the country is obstructed and the subsoil water-logged.

(46.) “The land lying between the embankment and the river-banks is considerably higher than the country surrounding, and the deposition of silt in seasons of flood is, I suppose, the chief cause of this. In many parts of the district the mulberry is extensively cultivated along the river-banks, and, owing to the fertilizing influence of the river, thrives well.”

26. To the above description I have little to add and nothing to find fault with, unless it be the tenderness with which the Government embankments are treated. The river-beds having been raised by the constant deposit of silt, to abandon these embankments now would no doubt involve enormous tracts in total ruin; but it was this system of embanking which has deprived the country of its natural increment of deposit and kept it permanently depressed, while its drainage channels have gradually become irrigation channels, its waterways choked up, and the whole area water-logged.

27. As regards the state of villages Dr. Mathew writes:—

(47.) “With the exception of some scattered mango topes, there is nothing like forest land in the affected quarters of the district, and but little jungle except in the immediate neighbourhood of the villages, which are surrounded by bamboo, plantain trees, &c., and during the rainy season there is in addition a considerable quantity of useless undergrowth.

(48.) “The sanitary condition of the villages, it is needless to say, is deplorably bad in every respect. Buried in jungle, studded with filthy tanks, houses crowded together and surrounded by all kinds of filth, are the most common characteristics of the villages of the district.

(49.) “The water-supply is contaminated and the atmosphere laden with the gaseous products of rotting vegetation and the excreta of the inhabitants. This description applies with equal truth to villages where the fever manifested itself in its most fatal form, and where scarcely a case occurred. Every village that I have ever visited is pervaded by odours more or less offensive.

(50.) “Utterly regardless of every law that conduces to health, the villagers remain on year after year surrounded by all those oft-described sources of nuisance with which we are only too familiar: and that the people not only live in such places, but increase and multiply into the bargain, is a pretty clear proof that stench *per se* will not cause disease, and that its deleterious effects on health bear no proportion to its offensiveness.

People and occupation.

(51.) “With reference to the people and their circumstances, I have not much to remark.

(52.) “Comparatively they are fairly housed, particularly in the larger villages.

(53.) “The better class of habitations are well raised, usually some three feet. The arrangement usually seen is a central court with a narrow verandah running round all four sides, off which the rooms open, and which, as a rule, are only lighted and ventilated by the door-way. The houses are kept clean, and the rooms and verandahs are regularly *leaped*.

(54.) “The poorer classes live in small huts about 14 × 10, greatest height about 12 feet. These structures are lighted and ventilated by the door-way.

(55.) “There is sometimes a narrow verandah in front, in which the residents sleep during the hot season.

(56.) “With regard to the circumstances of the people, I believe them to be moderately good. Since the year 1866 there has been no scarcity of food in the district, and there are no grounds for the belief that in the quarters of the zillah where fever prevailed the condition of the people in this respect has undergone change during the past three years.

(57.) “From a sanitary point of view, however, it may be assumed that the habits of the people and many of their customs, the air they breathe, the water they drink, and the food they eat, are all opposed to the attainment of health or vigour; and the only wonder is that they possess either one or the other to the limited extent they do.

N.B.—No figures were given in the margin, but I have fully analysed, in the opening part of the report, the incidence of the population.

(58.) “In the Midnapore district at large the population is irregularly distributed. I note in the margin its incidence to the square mile in the pergunnahs in which the fever prevailed.

(59.) “At Keerpooy, within the jurisdiction of the Chunderkonah thana, the population is particularly dense. Indeed, at Keerpooy village succeeds village for nearly three miles with hardly a break, it being a matter of difficulty for the visitor to determine where one commences and the other ends.”

28. Agreeing, as I do, entirely with all that is here written, I have little to add to it. The description given by Dr. Mathew applies, as is well known, to all the alluvial tracts in Bengal where the drainage is choked up and the population overgrown. But, if the most populated it is also the wealthiest part of the district: whether tested by its crops, its wealth, its schools, or its castes, it ranks first. It is here that the only jute grown in the district is found; sugarcane is grown in abundance. Nowadah is the great emporium of *gour* in the district. Ghatal, again, is the wealthiest town in the district next to Midnapore; all the traffic of the northern section passes through it. A toll at its entrance, on a very bad cutcha road, lets for over Rs. 4,000 a year. Again, the patshalas that have come in under the new scheme in this neighbourhood outnumber those in the littoral tract as 3 to 1, and in the laterite as 10 to 1. Here, too, the Brahmins and Kaests of the district are to be found, and the “*bhodrolok*” are so numerous that I have heard it said with reference to this fever, “it is better to die in Dasspore than to live in one of the jungle mehals.”

29. As regards the character of the fever, Dr. Mathew writes:—

(60.) “So much has already been written on this subject by the able and experienced officers who have watched the progress of the disease in other districts, that it seems hardly necessary for me to dwell here at any length on the subject. It is a malarious fever, the intermittent being the type by far the most commonly met with. In the early periods of its invasion remittent cases are sometimes encountered, many of which end fatally. The attack sometimes commences with violent vomiting and purging, the motions being profuse and watery; great prostration rapidly supervenes, almost amounting to collapse.

(61.) “Reaction is characterized by great heat of body with determination to the head. A not uncommon complication of this fever is pneumonia, on the supervention of which the fever assumes a continued character; typhoid symptoms manifest themselves, and unless the complication be promptly treated, it rapidly leads to a fatal termination.

(62.) “Intermittent fever and its sequelæ is the type of the disease most frequently met with.

(63.) “The rapidity with which the abdominal organs become involved seems one of its most striking characteristics. Rapid emaciation, digestive power lost or much impaired, œdema of the lower extremities, with marked pallor of the mucous surfaces, are the symptoms which attend all the more severe cases.

(64.) “The supervention of dysentery and diarrhœa is not unfrequent, and in many chronic cases scorbutic symptoms are very manifest.

(65.) "The epidemic fever has the following characteristics :— its severity over a large tract of country, as shown by the large proportion of the population attacked; the rapidity and certainty with which internal organs become involved; the tendency to, and frequency of relapse, and marked emaciation with which the disease is attended; the excessive mortality, and its persistence and increased fatality as the cold season advances.

(66.) "On this subject officers who have had much experience of the disease are on the whole pretty well agreed. Quinine stands first in estimation, especially in the early stages of the disease. In remittent fever it is usual to wait for the stage of remission before administering the antiperiodic: but it appears to me there are other stages of this disease in which quinine can be administered with signal advantage, and where it would not be judicious to delay its administration, pending the action of purgatives and other remedies.

(67.) "However, in ordinary cases of fever, when there is much bilious derangement, with nausea, &c., purgatives and diaphoretics are generally called for, and the action of quinine seems to be rendered more certain and rapid by their use.

(68.) "I think it was Sir Ronald Martin who praised so much a powder composed of jalap, calomel, and tartar emetic. Two grains of the latter is the dose he advocates in the treatment of the fever of natives. I saw few cases during the past two years to whom I would have administered a dose of the kind, for it is unfortunately the case that the people of this district do not apply for treatment until the time for such remedies has passed.

(69.) "It is, however, chronic fever and its sequelæ that we are called upon most frequently to treat. To deal successfully with these cases appears to me one of the most perplexing and difficult tasks a medical officer can undertake.

(70.) "The condition of such patients is truly deplorable, and calculated to arouse our liveliest pity. It is probable that if advised, and medicine were placed within the reach of these people when first attacked, a vast amount of suffering and disease would be prevented.

(71.) "When once the extremities become dropsical, with enlargement of the liver and spleen, remedies such as we can place within the reach of a vast proportion of the sufferers are of little avail.

(72.) "The stomach appears to me to participate more fully than is usually recognized in the general degeneration the tissues are involved in; and, without for a moment denying the immense importance of nutritious food in the treatment of such cases, yet I am disposed to think that more benefit would be derived from it in the early stages of the disease before the digestive powers had become impaired.

(73.) "There is, however, one article of diet that I would like to see given to these people, and that is good milk. In a great number of cases there is bowel disorder of some kind or other, and the late Dr. Fawcett placed great reliance on milk dietary in such cases, giving but little medicine.

(74.) "I would feel disposed to follow his advice to a certain extent, should it ever become my duty to superintend relief operations on an extended scale for this class of people. I should certainly prefer

it to meat in any shape—an article of diet to which the poor of this district are utterly unaccustomed, and which, particularly when sick, they are not likely to digest.

(75.) “With reference to the treatment of chronic fever and its results, the salts of iron, combined with the mineral acids, are the class of remedies which seemed to answer best. For cases of fever where enlargement of the spleen only exists, quinine with large doses of sulphuric acid are remedies which often succeed; counter-irritation over the region of the spleen, with a weak preparation of the biniodide of mercury ointment in recent cases of fever, when no marked evidence of blood deterioration exists, is a remedy of great power.

(76.) “Dr. Maclean, of the Victoria Hospital, Netley, some time ago directed the attention of the profession to the use of these ointments in cases of splenic hypertrophy, and, as far as my experience goes, it seems to be well worthy of the praises bestowed on it by that officer. In cases where marked pallor of the mucous surfaces exists, as in old cases of fever, this remedy does not seem to answer, its application being frequently followed by profuse salivation.”

30. On these two points I need make no comments.

(77.) “Early in September the Magistrate called my attention to the prevalence of fever at Narajole and the neighbouring villages. The police also about the same time reported that the disease had broken out at Shahpore and other places within the jurisdiction of the Debra police station. With the concurrence of Mr. Price, the Settlement Officer, the native doctor in charge of the survey party, who was then unemployed in the station, was ordered to proceed at once to Narajole with the necessary medicines. This officer showed a marked disinclination to undertake the duty. He had not done an hour’s work during the two previous months, and seemed much surprised at being ordered to exert himself in any way.

(78.) “When informed that his services were temporarily placed at my disposal, he appealed to Mr. Price, and eventually reported himself ill. After a week’s delay he proceeded to Narajole, and although I did not expect that much assistance would be rendered by so unwilling a subordinate, yet it is due to the man to say that subsequently he worked well and willingly, and rendered good service at Narajole and the adjacent villages.

(79.) “In the meantime I proceeded to Debra, and from thence to Panelikoorah, travelling through the densely-populated tract of country lying between the high road to Calcutta and the Cossye river.

(80.) “On my return to Midnapore, with the concurrence of the Magistrate, the native doctor in charge of the police hospital was ordered to Shahpore, where I learned that fever prevailed to a serious extent. He was stationed about six miles to the north of the Debra police station. After a short time reports reached me that he was not going on well. The people complained that he would only attend those who were in a position to pay him, and that he was in fact dishonestly disposing of the medicine that had been placed in his hands.

(81.) “I would have recalled the man, but unfortunately his services could not then be well dispensed with. Notwithstanding warnings, both written and verbal, he at length committed himself to

such an extent that he was subsequently convicted before the Joint-Magistrate of cheating, and sentenced to six months' imprisonment and fined Rs. 100.

(82.) "Meanwhile the Magistrate had established a temporary dispensary at Narajole. A native doctor, named Kissen Sing, was appointed to the charge of it, and on his arrival from Calcutta, and pending the completion of the cutcha dispensary building at Narajole, he was ordered to Dasspore, where fever then had broken out, and was causing a heavy mortality.

(83.) "On my visiting Dasspore, a week after his appointment, I found him prostrated with fever. He was subsequently transferred to Narajole, and remained in charge of the dispensary until the end of February.

(84.) "The Deputy Inspector-General of Hospitals sent two native doctors from the Presidency. One of these was at once sent to Dasspore to relieve Kissen Sing, and the other was deputed to assist the native doctor belonging to the survey party who was stationed at Bhowanipore and the other villages near Narajole, to which allusion has already been made.

(85.) "The urgent calls for medical assistance from other districts hardly left a man at the disposal of the Deputy Inspector-General, and I consequently sent an experienced and intelligent compounder to treat the sick at a village called Bulliarpoore, about one mile from the Dasspore police station. This man and the native doctor stationed at Dasspore did fair service. The Magistrate when visiting Dasspore found them fully employed, and they seemed to have gained to a great extent the confidence of the people.

(86.) "When I visited Ghatal, I ordered the native doctor in charge of the dispensary to visit regularly the surrounding villages and prescribe for the sick. He, however, allowed his supply of medicine to become exhausted, never intimating the fact to me; and when the Commissioner visited Ghatal, early in December, he found that the native doctor was neglecting his duty, and had never visited a single village. My orders with regard to visiting the villages were recorded in the Visitor's Book, and, as far as I know, the native doctor had not the shadow of an excuse to offer for deliberately ignoring my instructions.

(87.) "Mr. Buckland, rightly conceiving that the man could not be trusted, deputed a constable to escort him daily to the affected villages; and when I visited Ghatal, in January, I found the native doctor distributing medicine to a large crowd in a village about a mile from Ghatal.

(88.) "The disestablishment of the Kissengunge charitable dispensary placed the services of another native doctor at our disposal. He was first deputed to treat the sick

N.B.—An aided dispensary near Tumlook in the littoral tract.

in the villages near Debra, and afterwards was ordered to Bhowanipore and the other villages near Narajole, to replace the native doctor belonging to the survey party, whose services were again required by the Settlement Officer.

(89.) "The subjoined return shows the number treated up to the 31st March.

(90.) "These figures give but a very inadequate idea of the actual amount of sickness and the mortality that resulted.

(91.) "It is abundantly clear that the people of the district have not much confidence in the European system of treatment, especially when administered by their own countrymen, except in localities where dispensaries have been working for some years.

(92.) "Koberajes, a numerous and influential class, still hold their ground in the mofussil, and I found a large proportion of the sufferers under their treatment. When a villager is attacked by fever the koberaj is sent for, and it is only after he has failed, or when the resources of the patient are exhausted, that the Government native doctor is applied to.

(93.) "Another individual, no less active in his opposition to the system of gratuitous medical relief, is the wandering compounder. During the past six months I have frequently encountered this class of practitioners in the villages I visited.

(94.) "His qualifications are limited. He generally knows the doses of drugs and how to prepare them, and that is about all. He generally introduces himself as a native doctor who has abandoned Government service. His supply of drugs are limited and are of dubious quality. He undertakes the cure of the prevailing disease for a certain fixed sum, a portion of which is paid in advance. The length of his stay is regulated by the amount of practice he succeeds in obtaining, and the emolument therefrom resulting.

(95.) "Doubt seems to exist as to whether these men should be opposed or encouraged; I think the former. In the course of years, as duly qualified men seek for practice in the mofussil, the compounders will disappear; but in the meantime they victimise the simple villagers, and bring discredit on the medical profession."

31. I do not entirely concur in these opinions; but as I do not want unnecessarily to increase the length of this already bulky report, I will content myself with remarking that the experience which the people of the country have had of native doctors is not so very gratifying that we need be surprised at their being somewhat slow to place confidence in them. It will, I think, be found that if a native doctor be located in a place and behaves himself creditably, he will within a month command the entire confidence of the inhabitants.

32. I now pass on to the last and most important question, viz., what arrangements should be made to deal with the epidemic in its future ravages, which may be only too confidently anticipated?

33. On this subject Dr. Mathew's proposals are as follow:—

(96.) "The experience gained in other districts, and indeed in Midnapore also, leads us to the belief that as the rainy and autumn months approach, a fresh outbreak of the epidemic may be expected along the tract of country where it prevailed in 1872.

(97.) One fact that ought to be borne in mind is that assistance to be effectual must be rendered in time, and precautions should be taken so as to ensure that the first appearance of the disease in the affected quarters should be brought promptly to notice, and remedies placed within the reach of the sick in the early stages of the disease. The leading native gentlemen residing in the fever-stricken quarters

should be asked to interest themselves in the matter and bring to the notice of the Magistrate exceptional sickness, should any occur, and not wait until the village chowkeedar considers it necessary to take action in the matter.

(98.) "The Magistrate will probably bring to the notice of Government the few native gentlemen that extended a helping hand to their suffering countrymen and dependants during the past season; but as far as could be judged, the apathy and want of sympathy displayed by the vast majority was most marked and disheartening.

(99.) "It is clear that the poor of this district will have to rely solely on Government for any assistance they may require; and to what amount that assistance can be rendered, must necessarily depend on the extent medical aid will be required in other districts.

(100.) "Temporary dispensaries should be opened at Chunderkonah and Keerpoy, and to each dispensary two native doctors should be attached. One of these should be constantly on the move, while the other should remain at the dispensary to treat those who may come for treatment, as well as the sick in the adjoining villages.

(101.) "A definite area should be allotted to each dispensary and weekly returns demanded, showing the number treated, died, &c., and the quantity of quinine expended. There is already a dispensary at Ghatal, and to that a travelling native doctor should also be attached.

(102.) "Dasspore pergunnah requires at the very least two dispensaries and four native doctors; Narajole, one dispensary for the town and two native doctors; and for the line of country between Narajole and the Debra thana, three dispensaries with six native doctors.

(103.) "A special superintendent should be appointed to superintend the working of the dispensaries and the proceedings of the native doctors.

(104.) "His supervision to be effectual must be constant, and his visits unexpected by his subordinates. The orders laid down debarring native doctors on especial duty of this kind from taking fees should be rigidly enforced, and on no account should a native doctor be allowed to take money, no matter what the position of his patient may be.

(105.) "In a previous paragraph I alluded to the sanitary condition of the villages, and I have no doubt, were it practicable to free them from the jungle by which they are cumbered and improve the water-supply, considerable benefit would result.

(106.) "Dr. Elliot has pointed out forcibly and clearly what should be done in this direction, and it is greatly to be regretted that no means of effectually carrying out the measures he advocates appear to be available, and consequently the utility of further alluding to the subject here appears doubtful."

34. It will be seen that Dr. Mathew applies for nine dispensaries and eighteen native doctors; two attached to each dispensary, one to travel, and the other to treat the dispensary patients. He also applies for a superintendent by which he means, I understand, an officer of the rank of sub-assistant surgeon to supervise the native doctors. So far I entirely concur: it is obvious that the more native doctors the

Government can spare, the more effectually we can combat the ravages of the fever.

35. Assuming, however, that so large a supply will not be available, at any rate, until it is actually proved that the district is very severely attacked, I would ask sanction to the following proposals:—

(1.) That the civil surgeon and myself may have the disposal of two complete dispensaries and four native doctors, entirely supplied by Government to locate wherever we think they are most needed and the people least able to help themselves.

(2.) That a native doctor and medicines be sent to any place within the affected area where the inhabitants agree to pay half the doctor's salary. This the people of the villages opposite Narajole have already spontaneously offered to do on hearing that the doctor was likely to be withdrawn.

(3.) That quinine be entrusted to the gentlemen named by the British Indian Association in their letter of the 7th November 1872, with simple instructions for its administration.

- | | |
|--------------------------|-------------------------------|
| 1. Moddon Mohun Singh. | 7. Koylash Chunder Mookerjee. |
| 2. Bholanath Roy. | 8. Ram Coomur Gangooly. |
| 3. Radhakant Ghosal. | 9. Puttut Pabon Pattra. |
| 4. Jogessur Pahary. | 10. Setaul Persad Chowdhry. |
| 5. Nobin Chunder Haldar. | 11. Mehur Chunder Roy. |
| 6. Shibnairain Ghuttack. | 12. Kristo Konul Masunto. |

They have all agreed to distribute it.

(4.) That a supply of quinine be placed for sale at each police station and outpost at 20 per cent. below cost price, and a discretionary power be given to the officer in charge to administer it gratis to any poor patients, keeping a list of the names and amounts.

(5.) That to every schoolmaster and patshala guru in connection with Government a certain quantity of quinine be given for the use of himself and his pupils. Schools and patshalas are particularly numerous in this part of the district. Over 200 patshalas have accepted connection with Government on the terms offered recently, and there are some 20 or 25 schools. I would propose to make a fixed allowance to each guru—say an ounce, if this would not be too liberal—and let him know that the supply would not be repeated. I would then give him to understand that if he found that it was not all needed for himself and his pupils, he might give it in charity to other indigent sufferers, and I would instruct him how to do so.

No doubt many of the gurus would sell it, as do the native doctors and every body who can get the command of so valuable an article; but after all, even if sold, it will entail no greater cost on Government, while it will disseminate pure quinine where it is most needed. On the other hand, it will invest the gurus with some importance in their villages—an object which I look on as desirable in itself. I would, however, expressly prohibit them from *selling* it while authorizing them to *give* it away; and make this prohibition and permission generally known. *One cannot but hope that if that be done, partly through fear, partly through honesty, a good deal will be gratuitously distributed where it is most needed.

I do not propose to give this to all gurus in the affected area, whether the fever be in their neighbourhood or not, but only to those who are in places that are attacked.

(6.) I submit that instead of opposing we should endeavour to utilize, the services of all duly qualified private practitioners. Hitherto I do not think I am wrong in saying that the practical attitude of the Government and the department in the interior is one of hostility. The private practitioner is struggling probably to make a practice. When a dispensary is (as for instance at Hajepore) planted exactly opposite his door, he is of course under-sold; and just when he might most hope to make his way, he finds the ground cut from under his feet. This is the way he practically realizes the encouragement he often listened to in Calcutta about starting on his own merits and avoiding the error of his fellow students in looking exclusively to Government for employment.

I do not deny that, as a whole, this class are selfish—as they have to live by their profession it can hardly be otherwise—and that they are in great measure strangers to that sympathy for suffering among the poor which so honorably distinguishes the profession in parts of Europe; but I think they deserve encouragement, and would offer each duly licensed practitioner a certain quantity of quinine (say 4 oz. or 8 oz., or even 1 lb, if the fever in his neighbourhood is very bad) on condition that he would, as far as it went, distribute it gratis among poor sufferers. These practitioners would, I believe, accept, and if they sold some, they would probably also distribute a good deal gratuitously. We know of four such licensed practitioners within the affected area—one at Chunderkonah, one at Ghatal, and two at Nowadah.

(7.) I would, in every village of 500 persons and upwards attacked by the fever, appoint a punchayet of three or more persons to superintend the distribution of quinine in their village in the manner above described, to report every week the state of the fever, number of deaths, &c., and bring to notice any delinquencies or shortcomings on the part of those entrusted with quinine. In each such village there will probably be at least one guru: where there is not, one of the members of the punchayet might be entrusted with quinine. In the townships of Ghatal and Chunderkonah, and the unions of Keerpoy and Ranjebumpore, the town committees should be selected.

(8.) The directions as to the use of quinine, and the cases where it can safely be given, should be printed, and a copy given to every one who receives any for distribution. I need scarcely say that if a sub-assistant surgeon can be spared to superintend the operations in this district, it will be most conducive towards effectual supervision.

36. I ought not to omit to say, with reference to Dr. Mathew's paragraphs 105 and 106, that I earnestly protest against any attempt to clear away jungle or clean out tanks *compulsorily* in the affected villages. I saw a great deal of these measures when at Baraset, and afterwards at Krishnaghur, when these two places were both under the influence of the epidemic, and am convinced that they lead to a great deal of oppression, destruction of valuable property, expense, and no corresponding benefit. If done thoroughly, they might lead to good results; but to do this it would be necessary to spend thousands of rupees in each village.

37. The gentlemen who assisted this year in the relief of the distress were—

1. Rajah Jotendro Mohun Tagore, who sent a native doctor to Kootulpore, though without placing him *en rapport* with the authorities or communicating the fact to us.

2. Baboo Ajoodhya Ram Khan, commonly called Rajah of Midnapore, whose residence is at Narajole. This gentleman supported a private dispensary of his own at his house, and also paid towards a Government dispensary in another part of the town.

3. Baboo Lall Behary Dutt of Chinsurah, who sent me Rs. 100 towards the relief of the indigent.

4. Baboo Janokee Nath Mookerjee of Boinchee, who sent me Rs. 40 for the relief of the indigent.

38. Dr. Mathew concludes his report with the subject of causation as follows:—

(107.) “On this subject I have but few observations to offer.

Causation.

The disease is due to the action of a poison which we call malaria for want of a better name.

(108.) “Notwithstanding, however, the many, and indeed probable causes that have from time to time been discussed as tending to produce the epidemic, it appears to me that their disease-producing powers have always been admitted, and it is certainly very clear that all these conditions which are said to produce this epidemic have existed for many years without producing any other effect on the public health except those periodic outbreaks of fever with which every European resident in Bengal is familiar, and from which every native of the country suffers at some time or other. The appearance of the disease in the laterite tracts of Beerbhoom clearly shows that a water-logged subsoil is not a necessary condition for its propagation.

(109.) “The epidemic fever, as far as I know, has not as yet made its appearance in any village in this district built on laterite soil, nor does the disease appear to be advancing in the direction of the laterite country. I regard it as an advance of the Hooghly epidemic; but by what means the disease has been introduced I am not prepared to say. The disease is not spread by human intercourse, otherwise the station of Midnapore would have been the scene of an outbreak any time since 1869.

(110.) “Many people suffering from the epidemic fever of Hooghly and Burdwan have come to Midnapore and never introduced the disease into the town. During the past cold weather numbers of people from Dasspore and Ghatal were treated at the charitable dispensary, many of whom are at present living in the town, yet no outbreak of the epidemic fever has occurred.

(111.) “Residence in an affected locality, no matter the condition of life, gives rise to the disease, and that with a certainty that few people, no matter how strongly they may deny the presence of a specific poison, would like to test in their own persons.

(112.) “I know of two instances of native gentlemen occupying influential and lucrative positions in this district visiting their homes in Burdwan in perfect health and their contracting an attack of the prevailing fever, of which they both died in the course of a few months.

(113.) "In conclusion, I have to apologise for the great delay that has taken place in submitting the report. The accompanying map is, I fear, inaccurate in many respects; but it is the only one that it was possible to procure, and it is to be hoped that it will suffice to illustrate roughly the line of country affected by the epidemic. But owing to the irregularity in the incidence of the disease, to show that with anything like accuracy on a map, would be a matter of great difficulty, and would still further delay the submission of this report."

39. I need only add that all the facts in this district favor the prevailing opinion that the epidemic is due to a concurrence of causes partly known, partly unknown. It finds a congenial home in a depressed and water-logged country, a dense population, and all the insanitary surroundings which a dense population entails. On the other hand, it seems equally clear that it has a virus of its own, independent of these causes, which may poison the air of a perfectly dry and sparsely populated tract. As in the case of cholera, it is easy to see that certain conditions predispose places for its ravages, but unsafe to say that those conditions circumscribe its operations. The theory favored by Colonel Haig is, it seems, obviously true so far as that an enfeebled vitality due to poor and insufficient food, bad water, and impure air, render those attacked with the fever far less capable of resisting its attacks than they would be if possessed of greater strength of constitution; but conspicuously wrong in so far as it seems to contend that the morbid influences to which they are exposed have undergone no change, but remain the same in the affected tracts as they always were, while only the power of resisting them is weakened. That the air is positively tainted or poisoned, any one residing in it for a few days can easily ascertain; while a perfectly healthy and well-fed man transferred to an affected locality is attacked with the fever almost immediately.

40. On the other hand, the poison seems only to affect human beings. The people of Dasspore assured me unanimously that at the time when so many deaths were occurring, their cattle and dogs were perfectly healthy.

41. I regret to say that the latest accounts from Dasspore show that the rain that has fallen has led to a return of the fever, though without heavy mortality; but I fear that it may be looked upon as certain that the year will be one of great suffering and sickness as the season advances.

Statement showing the number treated and the number of deaths in the fever-stricken villages of the Midnapore District from October 1872 to 31st of March 1873.

Names of Villages				Total treated.	Total deaths.
Ghatal	...	...	...	4,899	29
Dasspore	...	...	...	9,728	93
Narayole	...	...	...	7,525	99
Shahpore	...	...	...	1,855	15
Total				24,007	236

H. L. HARRISON,
Magistrate.

HOOCHLY FEVER AND CONDITION OF THE
RYOTS.

MINUTE.

Fort William, the 14th August 1873.

Hooghly Fever and condition of the Ryots.

I PURPOSELY did not continue any direct enquiry after the Secretary of State's despatch of September 1871, regarding the condition of the ryots of Bengal, because I did not think that we should get much more by asking the same questions again so soon, and because the main end and object of all my measures and enquiries has, in fact, been to approach to a solution of this one great question. We have progressed somewhat, and we hope to progress much more, towards knowing something of the numbers and classes of the population, of tenures and rents, rates of wages and prices of food, and other things affecting the condition of the people. The local officers have been specially desired to give us in their periodical reports all that they know of these things and of the general condition of the people from year to year.

2. The annual administration reports now coming in from the different divisions contain much that throws great light on these subjects, and all this must be collated with reference to this enquiry. The report of the Burdwan division, in which Hooghly-*cum*-Howrah, Burdwan, and Midnapore are comprised, has not yet been received.

3. As respects the condition of the people of these provinces, one broad general assertion may, I think, be hazarded, viz., that they are, as a rule, comparatively better off in the east, and worse off in the west. They are better off in the former in two respects, which may be more or less inter-related as cause and consequence.

(1) The rate of wages is higher in the east at the same time that food is for the most part cheaper (Orissa in the west, perhaps, excepted with respect to cheapness of food); and (2) rents in the east are less screwed up to rack-rent pitch, and probably are lighter in comparison to the productiveness of the soil and the remunerative character of such staples as jute, &c., &c.

4. I made a special enquiry on this subject of rents, and we have received a mass of figures, but they are very wide and vague, and require much sifting before we can say more than the above. I take it the rent questions, which are cropping up in eastern districts, do not imply that rents are more racked there than elsewhere, but that the people have not yet submitted to rack-renting to the same extent as elsewhere.

5. It is certain that if the practical working of the permanent settlement had accorded with the theory of the Regulations of 1793, if the ryots had fixity of rent as the zemindars have fixity of revenue, the people of Bengal would now be the easiest in India; but it is far

otherwise, and the degree to which rents have been racked in different districts is in a great degree the measure of the comfort or discomfort of the people.

6. In districts to the west, where labor is cheap and land is dear, there is this distinction, that the people of some districts emigrate freely, or what is more common than regular emigration (the emigration proper is in such a population insignificant), they go to other parts of the country for temporary service and labor, or go at certain seasons to districts where hands are scarce, like bands of Irish reapers in former days.

The people of both Behar and Orissa thus largely supplement their home means. The people of Chota Nagpore (perhaps of all the countries in India that in which labor is cheapest) do so still more largely, and seem in their own country to be pretty well-off in their very simple way. This facility of emigrating or going out for labor extends wherever the aboriginal blood predominates; *e.g.*, into the Raneegunge portion of Burdwan, Bancoorah, Beerbhoom, and upper Midnapore. But the fever tract is to the east of this in an Aryan country.

7. The census returns show the district of Hooghly and a few thanas of Midnapore (now invaded by the fever,) with two or three thanas of Burdwan, to be the most populous tracts in these provinces—probably in India.

8. Then comes the question, what proportion of the whole are townspeople and non-agriculturalists? I fear that the census returns are not very reliable on this point, since so many people both cultivate and follow more or less some other occupation that it is very difficult to secure uniformity of practice in the classification. The agricultural laborers, too, have not been distinguished from non-agricultural laborers so well as we could wish. Also the statements of the Registrar-General do not give information on these points in a very accessible form. No doubt we must make allowance for the towns and great villages, containing a large town, mercantile, and fishing population, which fringe the river Hooghly in the Hooghly district, including Howrah in that term.

9. But apart from this we find in the back-lying thanas an immense population, notwithstanding that here is the low country so much covered with water that great drainage and reclamation works are suggested. Similarly, in Midnapore, Mr. Harrison remarks that the most crowded thanas are those in the pit of the low land between the great rivers. I do not take Doomjoor (with a population rate of 1,417 per mile), the thana next to Howrah, because that might be supposed to be suburban, though I am assured that it is really quite rural. Passing this over we have the thanas of—

Juggutballulpore	1,970	} Of Hooghly.
Amptah	...	...	1,093
Khanakool, and	...	...	939
Chandepore (or Oolaberiah)	941	} Of Midnapore.
Dasspore	...	...	1,311
Panchkoorah	...	...	999
Debra	...	...	1,016

which seem to form a low-lying water-tract, stretching from behind Howrah to near Midnapore, without a single town and still with an

average population fully equal to or exceeding 1,000 per square mile of gross area. The figures opposite each thana give the rate of population per mile.

10. There can be no doubt that this is an extremely dense rural population. It considerably exceeds the densest of the Behar districts, Sarun, where considerable rural tracts have a population of about 900 per square mile.

11. Still, living as the rural Bengallis do in scattered villages, the country population is not so thick as necessarily to affect health. If their health is affected by population, it must be either through poverty or owing to insanitary habits. This very populated tract is in close proximity to, and in very easy river communication with Calcutta, where there is a great demand for labor, and labor fetches a good price.

12. I believe that in these low lands there is not much rich garden cultivation; it is, I think, chiefly a rice country; and rice, as cultivated in Bengal, is a crop that requires comparatively little labor. If this be so, it would seem that so great a population cannot be profitably employed on so scant and water-logged a soil; and if the people are really unusually poor, the question will be whether it is because they won't go out and work, and prefer to stay at home on their patches of ground and starve. This may be tested by finding whether the people of this part of the country work in Calcutta, or otherwise go out for labor. I have been told by men who ought to know that, in fact, many of them do work in Calcutta, and that they are not specially poor as compared to other Bengal ryots. This is, however, a view opposed to the opinions of Colonel Haig and Dr. Saunders, and the facts must be sifted. I am inclined to think that it will be found that the people of this part of Bengal do not emigrate, although they may work in Calcutta, and that so long as they are not killed down by disease they go on increasing at home.

13. Since it seems to be the case that the country which has been the scene of Colonel Haig's enquiry, and much of which has also suffered from the fever, is really the most excessive in point of population in the country, and seeing that information regarding the country at large can but come in very gradually from many sources, I think it will be best in the first instance to confine our special enquiries, in fulfilment of the wishes of the Government of India, to the fever districts and the specially populous tracts which I have mentioned, while we will at the same time publish the papers and invite information from officials and non-officials.

14. It will be ascertained how far the questions propounded by the Government of India can be answered from the records of enquiries and reports already made, and special means will be taken to obtain information on those questions which cannot be sufficiently answered.

15. With respect to the densely populated tract, I propose first to analyse very specially the population returns, to ascertain who the people of those tracts are, what occupations they follow, and how they are distributed in villages large or small.

16. I would then ask—Are these people particularly poor as compared to the people of other districts, and if so, why? What are the prevailing rates of wages and prices of food? Are they hard

worked in their ordinary agricultural pursuits, or have they time on their hands? Are they rack-rented? and would put the other questions suggested by the Government of India. Especially, I would very carefully enquire whether they work in Calcutta, Howrah, or elsewhere, and whether they emigrate at all? I think special local enquiry on these points must be made by intelligent officers so as to get at the facts with greater precision than we have them from parts of the country which are not thus specialized.

17. Some special enquiry must be made regarding the class of weavers who are, I believe, numerous in some parts of Hooghly, Burdwan, and Midnapore; since theirs is a down-going trade, and it may be that they specially suffer.

18. I may observe that while, on the one hand, some road-cess returns sent in by the Commissioner of Burdwan would seem to show that the average holding of each ryot in Hooghly and Burdwan is unexpectedly small, on the other hand, I notice that in the proceedings of the Hooghly Road-Cess Committee, Baboo Joykishen Mookerjee is said to have stated that much land is lying untilled for want of people to cultivate it, which would seem to imply that, since the fever at any rate, excess of population is not in his view the evil. Yet the census was taken after most of the ravages of fever in Hooghly had occurred.

19. I am very much struck, in comparing the population returns with the map, to observe that the highest population almost exactly corresponds with the tract marked by Colonel Haig in the deepest colours as most in want of drainage and improvement, and with a similar tract in Midnapore, which has similarly suffered from flood, and the difficulty of carrying off the water, as I myself witnessed a few months ago. Colonel Haig gives a vivid and, I may say, horrible description of the tract, as one in which there is absolutely no healthy flow of water whatever, and no scape—a hollow in which the water stagnates, and a mass of decaying vegetation festers in it; where noxious fumes exhale in the hot weather, while the damp of the raw cold weather and extremes of temperature then prevailing render it still more unwholesome. Yet, in these reeking swamps, the human race seems to have multiplied to a greater extent than anywhere in India—perhaps in the world. It seems as if it may be almost said that we cannot have too much water in this country, and that in such conditions in this climate, all sanitary science notwithstanding, the human race will multiply till it is wasted by great calamities. As it is, Colonel Haig truly observes that up to this time there has been much less fever in these reeking swamps than in the higher parts of Burdwan and Hooghly, where there is a sensible natural drainage.

The 14th August 1873.

G. CAMPBELL.

LOCAL ESTABLISHMENTS.

Local Establishments.

Fort William, the 20th March 1872.

RESOLUTION—By the Government of Bengal.

IN the correspondence which ensued on the Board's Land Revenue Report for the year 1869-70, it was stated, more or less broadly, that district officers in Bengal, though fully as able and zealous as civil officers in other parts of India, did not, and, as matters stood, could not know much about the internal affairs of their districts. The Lieutenant-Governor then expressed an intention of administering the Government of Bengal more actively, and that policy received the approval of the Government of India and of Her Majesty's Government in England. One cause of administrative weakness in Bengal was said to be the fact that few Magistrate-Collectors stayed long in the same district; the Lieutenant-Governor hopes that transfers of executive officers are now, and will continue to be, much rarer than heretofore. But His Honor has himself observed, and he has learned from experienced Commissioners and others, that Bengal district officers are at a very great disadvantage compared with similar officers elsewhere, from the absence of any local executive establishments corresponding to the talookdaree, tehsildaree, or mamlutdaree officials of other parts of India. Improvements in law and system have made it less possible, and perhaps less desirable, to employ the police in ordinary matters of district administration, and the Bengal Magistrate deprived of an executive police has no executive instruments at all.

2. The establishment of sub-divisional officers, and their multiplication during the last fifteen years, has done a good deal towards effective control; but the great addition has been to judicial rather than to administrative strength, the sub-divisional officers having no executive establishments. The transfer of rent-suits to the civil courts, though it has given sub-divisional officers more time for administrative work, has at the same time deprived them of an important source of information regarding rural affairs, and has involved a decrease in the number of the Subordinate Executive Service. The sub-divisional officers of the more populous districts are still burdened with much judicial work, to which have been added treasury work and much office detail, so that they are not free to move about their sub-divisions; to acquaint themselves with the country and the people; to superintend the details of settlements and Government estates; to watch the working of municipalities; to investigate cases on the spot; to direct the road-cess assessment; to attend to local works; and generally to carry on that active supervision and administration which the Lieutenant-Governor desires to see carried out. A tehsildar, who is in fact the sub-divisional officer of other parts of India on a smaller scale than in Bengal sub-divisions, has under his orders a naib, who is well

paid and is available for all executive duties, and in some parts of India for petty judicial duties also. He has a canoongo, who is the link between the Government collectorate agency and the village proprietors and accountants; he has a departmental clerk (mohurrir) for excise work, for local fund work, for educational and other business; and lastly, he has several inferior officers (chupprasecs), whose business it is to carry out orders in the various departments. Aided by this staff, the tehsildar can do whatever the Government requires of him. He is not a mere collector of revenue: he is the agent of the executive Government in all departments. He sees to the assessment, collection, and proper expenditure of local rates; he looks after the excise; he effects petty settlements; he manages small sequestrated or wards' estates; he takes up land for public purposes, and arranges under the law for compensation; and he carries out all local works and repairs which do not require special engineering skill; he arranges supplies and carriage for the passage of troops; he obtains and furnishes the statistics which it is very important to procure as a help to guide our administration, as well as being interesting in themselves. For much of all this business a special agency has to be entertained and paid in Bengal as occasion may require; often it must be created in each particular case—a system attended with much loss in point of economy and efficiency. The work could probably be much better done by sub-divisional officers if only they had an executive establishment.

3. The Lieutenant-Governor earnestly desires, then, to give district officers in Bengal some executive establishment of the kind described above. He also feels that the first assessment of the road-cess, and the ascertainment of landed tenures which it involves, will, for some time to come, necessitate much labor, and that the result will not only be useful for the immediate purpose, but beneficial to the country in many ways. He is unwilling to burden the cess too heavily on account of the expenses involved in the first years, and will be glad if he can supply a Government establishment capable of doing the work with moderate assistance.

4. Another very important object which the Lieutenant-Governor hopes to attain by the arrangements about to be detailed is as follows:—He has found the greatest difficulty in efficiently filling the present Subordinate Executive Service, because there is no school in which young men may be trained by experience, and in which their abilities may be tested before they are promoted to high office. Fitness for high administrative appointments is not so easily tested by examinations alone as legal capacity; and there is no such school for these appointments as the Bar affords for judicial appointments. Consequently it has been necessary to nominate to deputy magistracies and such like posts young men who have neither been trained to the work nor sufficiently tested. It seems to the Lieutenant-Governor that a deputy magistracy is a very high and highly-paid appointment. Looking to the power exercised, and the position and influence of the appointment, and taking the comparative value of money, he thinks that it is an appointment at least corresponding to, and in fact in most cases considerably exceeding, the best county court judgeships and stipendiary magistracies in England. Men of ripe experience

and tried character are glad to accept these latter appointments; and it does not appear to the Lieutenant-Governor to be desirable that the corresponding appointments in India should be filled by youths fresh from college. In fact, he does not think that efficient officers can be thus secured. Some may turn out well after being trained at the public expense; others are not successful. As a Judge of the High Court, Mr. Campbell formed by no means a high opinion of the judicial qualification of some of the deputy magistrates and deputy collectors, and he is not sure that judicial deficiencies were always compensated by administrative activity and energy. The Lieutenant-Governor has now tried a system of examination, which shall test to some degree both mental and physical fitness, and he has just appointed ten new officers to the Subordinate Executive Service under this system. Still he cannot have, and has not, any complete assurance that they are already well-fitted for the post of deputy magistrate and deputy collector, or that they will eventually turn out to be so. The spread of education in Bengal has now resulted in a great supply of educated young men; the supply is in fact such that the market value of the best young men fresh from college is very far below that of a deputy magistracy. It seems to the Lieutenant-Governor not at all desirable that a few of many candidates should be selected to fill places beyond their experience and their years, while the others are stranded without employment. He thinks it would be far better that a larger number should have the opportunity of entering the public service in a lower capacity, more nearly corresponding to that which the most educated youths of England and other countries are glad to fill, and that they should thence be promoted according to the practical capacity which they may show. It is therefore his wish to take advantage of the creation of appointments inferior to those held by the present gazetted members of the Subordinate Executive Service, in order to open such appointments to the best young men available; and he would make it the ordinary practice in future to promote to higher appointments from among those who have served efficiently in the lower grades. He would, in fact, institute a Native Civil Service on a wider basis than the present Subordinate Executive Service, and would encourage capable native youths to enter it at the beginning. In England a salary of £100 or £120 commands any number of young men of the best education but without previous experience, and the Lieutenant-Governor thinks that in this country such young men might enter on Rs. 25 or 30 per mensem, with the prospect of promotion if they earn it.

5. The Subordinate Executive Service and inferior establishments have not been included in the scheme of the resolution of the Government of India, dated 14th December 1870, by which certain departments, with a proportionate assignment of funds, were made over to the local Governments, and there may be difficulty in so arranging the services that part shall be paid from imperial and part from provincial funds. The Lieutenant-Governor hopes that the Government of India may perhaps consent to make over to this Government the funds assigned for the uncovenanted services, together with the estimated cost of the various special and occasional duties for which temporary establishments are so often entertained in Bengal; and then he may be able to weld the whole into one Uncovenanted Civil Service. With

this view the whole scheme will be submitted to the Government of India. Meantime the Lieutenant-Governor would try to establish an organized service, supplementary to the present Subordinate Executive Service, on the understanding that it will be the feeder of the higher grades of the service. To this end he has, by an economical distribution of the funds at his disposal, succeeded in making available a sum of two lakhs of rupees, which will be set aside in the ensuing budget arrangements for 1872-73 for local establishments, and with this sum he hopes to obtain a large instalment of the objects which he has in view.

6. The Lieutenant-Governor proposes then to make the establishment now to be created subordinate to the present sub-divisional officers; a suitable establishment being also, when necessary, attached to the head-quarter divisions. He would have three grades of subordinate establishments, namely:—

First-class sub-divisional Establishment.

				Per ensem. Rs.
1	sub-deputy	...	...	150
1	canoongo and surveyor	...	...	50
4	chuprassees at Rs. 8 each	...	...	32
6	" " 6 "	...	...	36
Total				268

Second-class sub-divisional Establishment.

				Per ensem. Rs.
1	sub-deputy	...	...	100
1	junior canoongo and head measurer	...	...	25
2	chuprassees at Rs. 8 each	...	...	16
4	" " 6 "	...	...	24
Total				165

Third-class sub-divisional Establishment.

				Per ensem. Rs.
1	canoongo and surveyor	...	...	50
2	chuprassees at Rs. 8 each	...	...	16
2	" " 6 "	...	...	12
Total				78

From the allotment of two lakhs, the Lieutenant-Governor might be able to provide, say—

				Rs.
33	1st class establishment,	Rs. 268 × 33 × 12 =		1,06,128
33	2nd " " "	165 × 33 × 12 =		65,340
34	3rd " " "	78 × 34 × 12 =		30,624
100 sub-divisional establishments at a cost of about				2,02,092

The sub-deputies will at some sub-divisions be vested with small magisterial powers, and in all matters they will be executive assistants under the sub-divisional officers, and may be entrusted with the charge of treasuries and such like duties. The canoongo will be mainly charged with the supervision of the cess papers, while as surveyor he will not merely survey lands or roads, but will be employed to look after the execution of local works or projects, to superintend repairs, to conduct petty local enquiries, and to make himself generally useful in respect of all matters under the sub-divisional officer. In light sub-divisions but a small establishment will be required, and at head-quarter divisions, when the present deputy magistrates are active and efficient, a third class establishment will often suffice, with perhaps the addition of a few chainmen and such like inferior officers.

7. Candidates for, or persons appointed to, any of the grades above-mentioned, will have to pass in drawing, surveying, and certain engineering tests; meanwhile candidates who have passed such tests will be preferred. Details regarding the qualifications of candidates, and the arrangements for examination in the subjects just mentioned, will be notified hereafter, meantime something like the following scheme may be adopted:—

For the post of a junior canoongo and head measurer candidates must be either men of approved Government service of not less than three years' standing, or young men who have passed the entrance examination, or a corresponding vernacular examination to be hereafter laid down as a temporary arrangement for Hindustanee candidates. Those who have obtained certificates as sub-overseers from the Engineering College, or passed a similar examination, will be preferred.

For the post of canoongo and surveyor a candidate must either have served and obtained credit in the lower grade just mentioned, or in other Government service of not less importance and pay, for three years at least; or he must have passed the First Arts examination and qualified in surveying, &c., as above; or he must have obtained an overseer's certificate from the Engineering College or passed an examination in physical and practical science.

To the post of sub-deputy, men will ordinarily be promoted from the grade of canoongo and surveyor; but until an efficient staff has been organized, men who are qualified for, and have passed the examination lately prescribed for the Subordinate Executive Service, or who have obtained certificates as assistant engineers from the Engineering College, will be eligible. Deputy magistrates and collectors will generally be chosen from those who have rendered good service in this grade.

In all grades the possession of higher attainments than those specified will be duly considered.

No man should be appointed to an Rs. 8 chuprassee's place who cannot read and write the vernacular and assist in measurements.

All candidates for all appointments, high and low, must be able either to ride or to walk twelve miles at rapid pace.

8. Appointments to places on Rs. 25 per mensem and lower will be made by collectors subject to the foregoing rules; rolls of persons nominated to the twenty-five rupee appointments being submitted for

approval of Government. After such approval the person appointed, if young enough and sufficiently well educated to be fitted to rise to the higher appointments, will be enrolled as a probationer in the Native Civil Service, and after a year, on receipt of a favorable report, he may be confirmed in that service.

Appointments above Rs. 25, and not exceeding Rs. 50 per mensem, will be made by the Commissioner on report from collectors, subject to the foregoing rules, and to the submission of appointment rolls to Government. Sub-deputies will be appointed by Government on the recommendation of the Commissioner of the division. No appointment of a candidate who is not eligible under the rules can be made without special sanction of Government.

9. The Lieutenant-Governor understands that the civil court ameenas are not unfrequently a competent class of men; that many of them are thrown out of employment now that judicial officers are required to do their own work more than formerly. It is not improbable that from this and other classes good men may be obtained to supply urgent vacancies, till young men, otherwise well educated, qualify in the special subjects required in sufficient numbers. The Lieutenant-Governor has also noticed with surprise and regret the small proportion of natives of Behar, or Hindustanees generally, in the higher branches of the public service of these provinces. He looks on it as a great evil that in an administration which comprises so great and populous a province of Hindustan as Behar, besides some other Hindustanee-speaking districts, the Hindustanee race should be shut out of the service. Looking over the subordinate executive lists, it seems to the Lieutenant-Governor as if the Kaits and other literate Hindus of Behar were almost absolutely excluded. The Lieutenant-Governor thinks it probable that many men of these classes are in service in the North-Western Provinces and Central Provinces. On the other hand, the completion of settlement operations in the Gangetic Doab may throw out of employment there many persons who are possessed of a knowledge of surveying and experience of settlement, such as we are now particularly in need of. For employment in Behar, men of that province and of the adjoining and allied provinces of Benares, who have served with credit in the North-Western or Central Provinces, may be considered to be eligible. Therefore, till a supply of candidates qualified under the rules is available, the Government reserves the right of appointing men whose character and qualifications are found to be generally of the description required, such as the classes abovementioned.

10. The scheme detailed in this resolution will be subject to modifications according to circumstances. The Lieutenant-Governor would hope that in course of time the local establishments may develop into a regular executive service, filling very many high offices; that educated young men of good character may enter in the lower grades and work up to deputy collectorship and superior appointments, and that there may thus always be a supply of qualified, trained candidates for the various posts of the subordinate executive service. If the plan succeeds it will not hereafter be necessary to nominate to deputy collectorships untried men, who have had no experience in executive work, and regarding whose fitness little or nothing is known.

REDUCTION OF ASSISTANT DISTRICT
SUPERINTENDENTS OF POLICE.

Reduction of Assistant District Superintendents of Police.

Port William, the 20th March 1872.

THE Lieutenant-Governor considers that the demands which are now frequently made for assistants to District Superintendents of Police are founded on the idea, which was till lately very prevalent, that the Police is to be a separate caste and service, and that no one but regular Assistant Superintendents can assist the District Superintendents. This mistake has already been pointed out on a former occasion, on which His Honor declared that it was not his intention that District Superintendents should have assistants, save in exceptionally heavy or difficult districts; that the inspectors are their assistants for most practical purposes; and that when a District Superintendent goes out into his district, an officer of the rank of inspector should have charge of the current duties of his office, and should submit reports of all important matters in the diaries, and information otherwise received, to the Magistrate as well as to the District Superintendent. Lately, indeed, His Honor had to remark on the impropriety of a native inspector opening a confidential English letter addressed to the District Superintendent; but it was at the same time pointed out that anything not intended to be seen by the District Superintendent's inferior, the inspector, should go to his superior in the same department, the Magistrate. The Lieutenant-Governor therefore considers that Assistant Superintendents are, as a rule, unnecessary.

2. As to the other argument for their maintenance, viz., that there must be men training for the post of District Superintendent, His Honor is convinced that it is better they should not be a separate class, that they will be far more efficient and more reliable if they have some experience of the ordinary branches of civil employ. The Government of India, in directing the abolition of assistant superintendentships in Assam, expressed the same opinion, observing that "the training in judicial work which is desired for police officers might be obtained by appointing to district superintendentships from among the assistant commissioners."

3. As at present advised, then, the Lieutenant-Governor does not propose to appoint any more new Assistant Superintendents, but to absorb those who are fit for it in the Subordinate Executive Service of the regulation and non-regulation provinces. If in any district, under exceptional circumstances, it is necessary to employ an officer as assistant to the District Superintendent, an officer of the Subordinate Executive Service may be especially so employed, and for the appointment of District Superintendent either officers of the Subordinate Executive Service or junior civilians will be eligible.

4. The Lieutenant-Governor hopes that in this way the police will become a branch of the general administration, working in complete harmony with it, instead of being an entirely separate department. Money will also be saved, and, if necessary, it may be expended in increasing the efficiency of the Subordinate Executive Service, in connection with the scheme for its wider organization now before the Government.

**RESOLUTION ON THE WORKING OF THE
POLICE OF BENGAL FOR 1871.**

Resolution on the Working of the Police of Bengal for 1871.

Calcutta, the 8th October 1872.

RESOLUTION—By the Government of Bengal, Judicial Department.

READ—

The Annual Report on the working of Police in Bengal for the year 1871.

Read again—

The Annual Report on the same subject for the year 1870.

1. Till recently, under the system prevailing in Bengal, the Inspector-General of Police and his deputies were relieved of all concern with crime, and were not charged with the duty of superintending the operations of the police; they were entirely confined to the personal organization, discipline, and internal management of the police force. The superintendence of the police in their active duties was vested in the Commissioners of divisions, each of whom reported separately to Government. It has been found, however, that there is thus no sufficiently concentrated view of this very important subject; and, while reserving for further consideration the question of the direction of detective and other operations, the Lieutenant-Governor has thought that the Inspector-General may at any rate collect with advantage information regarding crime and police administration, collate and compare the returns, and report upon the subject to Government. It has accordingly been directed that this course shall be followed in future.

The divisional reports for the year 1871 have been separately received and reviewed, and the Inspector-General's functions were not extended, as above described, during that year. But he has submitted the usual report on the police force, and statements showing the general results of their operations in dealing with crime. The report of the Commissioner of Police for Calcutta and the suburbs has been separately received and dealt with. The report for Assam has not been received, and is not dealt with in the Inspector-General's report, which is thus not a complete report for the whole of these provinces. In future years the Inspector-General will compile and submit a report on the whole police administration, the Commissioners' reports being submitted to Government through him, and the Government will then combine in one resolution a review of the whole subject. In the present year details having been already dealt with in the Commissioners' reports, the Lieutenant-Governor now, in general terms, reviews the subject as presented in the Inspector-General's report, omitting Calcutta and Assam.

2. Various changes have been made, in the course of the year, in the relations of the police officers to the magistracy, and revised rules

have been issued for their guidance in the various stages of enquiry and prosecution of cases and in other matters; but as the revision of rules and directions is not yet quite complete, and will be connected with some changes introduced by the new Code of Criminal Procedure; and as the Inspector-General does not in the report now submitted deal with these subjects, the Lieutenant-Governor will confine himself in this resolution to the ordinary operations of the past year, as set forth by the Inspector-General.

3. The only material change affecting the organization of the police force which took place during the year was the transfer of the Assam police to the immediate control of the Commissioner of that province with the powers of Inspector-General. The sanctioned strength of the ordinary district police remains very much what it was last year, the only increase having taken place on the Chittagong and Cachar frontier, where 391 men in all were added for semi-military duties. On the other hand, there was a decrease of 13 men in Keonjhar owing to the gradual pacification of that tributary estate. The number of Assistant Superintendents was somewhat reduced, vacancies not having been filled up. The number of men actually employed on 31st December 1871 was 2 per cent. below the sanctioned complement of 21,082, exclusive of District and Assistant Superintendents.

4. As regards expenditure, no information is given in the report, but the following figures have been obtained demi-officially from the Inspector-General's office. The total budget grant (excluding Assam) was Rs. 41,77,743, and the total expenditure Rs. 42,69,704, being a gross excess of Rs. 31,961. It is explained, however, that this is obtained by showing all the drawings on the clothing fund as disbursements, while the receipts from the men on this account do not appear. Adjusting this, there was an actual saving of Rs. 51,060 on the budget grant.

5. The sanctioned strength of municipal police in 1870 was 6,669, and the cost of Rs. 5,24,896. In 1871 the strength was reduced to 6,586, while the cost rose to Rs. 5,29,601. Of this Government paid in Howrah Rs. 10,990 and in Patna Rs. 26,510 during the past year. The changes in strength and cost were caused by the action taken by several municipalities in either reducing the number of their police or raising their pay. The Inspector-General objects strongly, in paragraphs 18—21, to allowing these local bodies any liberty of dealing with their police, but the Lieutenant-Governor cannot at all agree with him in that respect. The Inspector-General reproduces his views with reference to the new Municipal Bill as originally drafted, which was intended to give the municipal bodies large power in this direction. The Bill has been somewhat modified in the police sections, and the appointment, dismissal, &c., of the municipal police will rest with the Chairman under the general direction of the Magistrate of the district, and not with a committee. It is probable that a responsible officer like the Chairman residing on the spot will make at least as good a choice of men as the District Superintendent at the sudder station. It is stated by Colonel Pughe in paragraph 16 of the report that the duties of a town police are mainly those of watch and ward, or simple

patrol, for which duties he thinks Hindustanees much better fitted than Bengalis; but in paragraph 20 he insists on the necessity of their acting for the detection of criminals, and working for a common purpose with the district police. Under all the circumstances, the Lieutenant-Governor much doubts the expediency of employing foreigners very largely in Bengal proper for the duties of municipal police, as the Inspector-General recommends; and he also thinks it not altogether fair to the municipalities to use their forces as a mere stepping stone to the regular police, still less as a refuge for inefficient or degraded men, as has been, he fears, sometimes the case. The Lieutenant-Governor thinks that in most of the towns of Bengal (which are very far from being highly advanced centres of population), the duties of a municipal police partake very much of the character of those of a village chowkeedar. The same class of men is in most cases competent to fulfil the duties, and the pay and status may very well be settled with some regard to that assumption. There is no subject in which the local town committees are more vitally interested than the strength and cost of their police; and if they will only take an interest in the matter, the best results may be expected. The experiment any way is worth a trial if the new Municipal Act becomes law. Hitherto the police department has imposed what scale of force it chose upon the towns at a rate of charge which they have in many instances been very ill able to bear. There are no doubt many abuses in regard to the large country areas included in some municipalities and to other matters. All these subjects will be dealt with when the Municipal Bill is passed.

6. The working of the Chowkeedaree Act VI (B.C.) of 1870 has been separately reported to the chowkeedaree act. Government by Commissioners, and separately dealt with. While considerable success has been obtained in some quarters, difficulty has been experienced in others. From enquiries in connection with reports received from various parts of the country, and from the description of the way in which the census was taken in various districts, the Lieutenant-Governor has been led to think that the indigenous chowkeedaree element is by no means so wanting in these provinces as has been sometimes supposed. His Honor has great hope that under the new Municipal Bill it may be improved and developed without such sweeping change as the present Bill necessitates. The whole subject is one which much requires attention. Meantime Magistrates must use their influence to get the arrears of pay liquidated wherever these exist. The new Criminal Procedure Code will make the duties of zemindars and chowkeedars with reference to crime more clear and precise.

7. The reduction in the number of the salt preventive police, which was noticed in last year's report, was thought to have led to a great falling off in the number of salt cases detected in Cuttack. This year there is a further decrease of salt cases prosecuted, as shown in paragraph 189 of the report. In the Commissioner's annual report, however, much of this is attributed to the orders of the Board prohibiting prosecutions in saliferous tracts, when the illicit salt is made only for personal consumption. In Balasore and Pooree the police did fairly

well in salt cases. In the latter district, improvement has been effected by a re-arrangement of outposts and re-distribution of the men without any extra cost. A new outpost has been by this means provided on the Madras frontier. Credit is due to Mr. Davis, of Midnapore, for the way in which he worked a special force constituted from his regular district police for the purpose of dealing with salt smuggling.

8. With reference to the Inspector-General's paragraphs 45 to 50, it may be observed that the whole question of police patrol-boats is again under consideration. The Lieutenant-Governor considers it one of pressing importance, especially with reference to the prevalence of river dacoity in Eastern Bengal. He is inclined to think that most of the patrol-boats might be with advantage allotted to local thanas, as several officers recommend, but for the chief rivers a much more effective special patrol is required. He is disposed to favour a proposal for employing steam launches for this purpose, and has already ordered two in the Public Works Department, which will, it is hoped, be ready by Christmas, and one of which may probably be attached to Backergunge for police duty by way of experiment.

9. The working of the frontier force, and the questions arising out of the Lushai expedition, have been disposed of separately. The Lieutenant-Governor will only here acknowledge the zealous and efficient aid rendered by the officers and men of the police during the expedition.

10. In the 58th and 59th paragraphs of the report the drill of the force is said to be unsatisfactory. The Inspector-General considers Bengalis almost useless as guards, and recommends the employment of men of Behar. The Lieutenant-Governor has now before him the question of the ratio in which foreigners should be employed in the police of any district; but he is disposed to think that the men of Eastern Bengal at any rate might make sufficiently good guards. From Statement F in the appendix it appears that 7,171 men are armed with fire-arms, 1,550 with swords and batons, and 13,419 with batons only.

11. The calls upon the police for extra duty on account of fairs and religious assemblies were rather heavy, 95 such gatherings having necessitated the deputation of 1,373 men from the regular force in addition to the police of the locality. The people on these occasions seem generally to give little trouble, but at the ear festival of Serampore, serious accidents, involving loss of life, have this year again occurred owing to the impossibility of controlling properly the unwieldy machine on which the image is conveyed. The Lieutenant-Governor has been led by these repeated accidents to think that some decided measure are necessary for preventing such sacrifice of life and limb. The matter is under consideration.

12. In 5 cases only were police posted as a punitive measure. The Inspector-General considers that more free recourse should be had to this procedure, and that mail-cart robberies and road dacoities might very effectually be dealt with by establishing posts at the cost of the zemindars, who do nothing to prevent these robberies or detect the offenders. The Inspector-General seems to have overlooked the

fact that it is not on the zemindars, or upon any particular section of a community that the cost of such punitive police falls. As the law stands, the cost falls on the inhabitants of the place generally, according to the Magistrate's judgment of their respective means. The police quartered along the East Indian Railway were quartered on the villages to which the offence of stealing the railway material had been pretty clearly traced.

13. The total expenditure on police buildings by the Police Department was Rs. 92,430-10-6, of which Rs. 53,960-12-11 were for petty repairs, the rest being for petty constructions. The amount thus expended exceeded the budget grant by no less than Rs. 46,230. The Inspector-General considers that the ordinary grant for repairs, to which items of petty construction are debited, should be raised to a lakh of rupees. The Lieutenant-Governor considers this demand much greater than can under any circumstances be given. It is absolutely necessary that the Inspector-General should arrange more economically than was the practice under the former loose system of spending the general budget savings of the department on police buildings. Last year no less than Rs. 4-1-6 per head were spent in this way, which seems to be double the rate allowed by the Government, and nearly quadruple the rate which the Government of India thought sufficient.

14. What are called casualties, that is vacancies by death, resignation, dismissal, &c., amount for the year to 12·3 per cent. on the total strength, and by far the greater number occurred in Bengal. Sickness, and the facility with which other employment is procured, are assigned as the chief causes for resignations. The total deaths were 19 per thousand on the whole, but in the Garo Hills they reach the very high figure of 10 per cent., or nearly double the highest rate in any other district. The causes of this mortality should be more closely examined by the Deputy Commissioner, and a detailed report made with any suggestion for reducing it that may occur to him. In the Chittagong Hills, which are supposed to be as unhealthy, the mortality is small comparatively (3·6 per cent.), though the sick rate is high. The Lieutenant-Governor would also wish to have some explanation of the excessive mortality in the Hooghly district of 53 per thousand.

15. The percentage of dismissals shows a satisfactory decrease from 6·4 in 1869 and 4·0 in 1870 to 3·8 in the year of review. The Bengali districts furnish the largest number of dismissals, and this is attributed to the propensity of a Bengali to be absent without leave. 19 per cent. of the force were punished by fine, degradation, or suspension. The Lieutenant-Governor hopes that the new rules recently promulgated, by bringing the punishments of the force to a large extent under the supervision of the Magistrate, will prevent many of the capricious punishments to which the Inspector-General refers. The Lieutenant-Governor entirely concurs in the remarks contained in Inspector-General's 84th paragraph, as to the impropriety of the system of worrying either officers or men by constant petty fines. If a man is

really incorrigible, and not amenable to warning and reproof, he should be removed. It is noticed that 1·5 per cent. of the force were judicially punished under Act V of 1861, and 2·1 per cent. under the Penal Code. The Lieutenant-Governor is, however, glad to notice that in only one case was torture proved against the police and in that they seem to have been actuated by over zeal, since the persons arrested were convicted of a very serious dacoity.

16. Only somewhat over a third of the whole force can read and write. This is a state of things very detrimental to efficiency, and it is

Education.

difficult to see that the Inspector-General's proposal to entertain extra head constables on probation would much improve matters. The Lieutenant-Governor wishes to know what is done in the way of schooling the men at present. In the Calcutta Police the men are taught their drill lessons out of a book, which they sing or recite, and he thinks the police generally might well be taught to read the simplest Bengali and Hindee printed characters in this manner. The whole subject should be specially reported upon.

17. The work of process-serving has very largely increased during the year. It may be hoped, however, that the rules for service of process in

Process-serving.

non-cognizable cases by a special body of peons will, when passed, relieve the police materially.

18. The suicide returns show the same anomalies as last year, some districts having hardly any, others a large number of such cases.

Suicide.

The Lieutenant-Governor will give orders to have special enquiry made on this matter through the Magistrates of those districts in which the police report the non-existence of suicide. That it indicates the absence of a good village chowkeedaree system or want of information in some way, there can be little doubt.

19. The number of deaths by accidents reported to the police is yearly increasing; 21,245 cases are reported in 1871, of whom 9,853 were drowned, and 6,829 were killed by snakes. If, as is probable, hundreds of such cases are never reported, the mortality from accidents must be very considerable.

Accidental deaths.

20. The police have rendered very efficient aid this year in the work of the census; and the Lieutenant-Governor acknowledges their services as particularly deserving of commendation.

CRIME.

21. Turning now to the statistics of crime as collated by the Inspector-General, the Lieutenant-Governor observes that the number of

Statistics of crime.

reported cases of crime cognizable by the police which were accepted as true has risen from 57,114 last year to 70,866 in 1871. Of these, 11,833 cases were taken up by the Magistrates without the intervention of the police. The Inspector-General states that of the total number of cognizable cases (including pending from 1870), viz., 72,465, 62,501 were investigated. It is not clear how the last figure was arrived at.

Columns 6, 7, and 8 of Statement A, Part I., shows that only 54,545 cases were investigated, and that convictions were obtained in 22,541 cases. Most of the cases making up the total are not of the most heinous character. The number of serious offences against the person was 3,730. Of very serious offences against property—dacoity, robbery, and such like, but excluding lurking house-trespass, house-trespass, and receiving—there are 1,241. There seems to have been a great increase in the number of cases dealt with by the Magistrate direct, a change regarding which some information is required. The number of arrests (72,817) is 14,026 over the previous year. 18,896 of the total were made under the Magistrates' orders, whereas in 1870 only 8,212 were so made. 60,618 were put on trial, of whom 60 per cent. were convicted, as against 76 per cent. of convictions out of 43,996 put on trial in 1870. This falling off the Inspector-General accounts for by the increased numbers put on trial in 1871. In 1870, 14,466 were released without trial; while in 1871 only 5,701 were so discharged. Commissioners must be asked to explain, if possible, this great difference in procedure in two consecutive years. It would appear that Magistrates have been more generally active, and have more generally taken the initiative. This is, no doubt, in some degree owing to recent instructions, and is, so far, much to be commended. But of course it is very desirable that care be taken not to overdo the practice. People should not be harrassed by unnecessary enquiries. The number of cognizable cases taken up by the Magistrates direct during the past year seems to the Lieutenant-Governor greater than would be desirable on any other supposition than that the police have very much neglected their duty.

22. Neither in this report nor in those of the Commissioners is there any satisfactory explanation of the general increase of police cases, especially of thefts and burglaries, shown in the return under review, as compared with that of 1870, which latter year showed an unusually small number of such cases. Some partial attempts at explanation are embodied in some of the reports, but nothing sufficient to account for the general increase. The year was prosperous and undisturbed, the price of food was low, and no reason for a general increase of crime appears or is anywhere suggested. The Lieutenant-Governor has therefore little doubt that the increase is for the most part apparent, and due in some degree to the orders prohibiting the ignoring of undetected cases not shown to be really false—as also perhaps to greater activity on the part of the police and Magistrates, and greater thoroughness in the reports themselves. The fact is, the margin of unreported crime is so large, that a comparatively small advance in the truthfulness of the reports would more than account for the increase now shown. The Inspector-General shows that of cognizable crimes reported, 14 per cent. were not enquired into by the police. The rules very probably allow a discretion, and do not encourage the police to force enquiry in cases of simple theft and burglary if the parties do not desire it; and if this is fully acted on in fitting cases and the confidence of the people obtained, we shall probably have many more cases reported and a still smaller proportion of cases prosecuted to conviction. But the Lieutenant-Governor would have it clearly understood that he will judge officers by substantial results, and not by any fictitious system of percentages, of which there has been sometimes far too much made. The proportions

and comparisons derived from ascertained facts are very valuable guides, but when the facts are fictitious or cooked to suit arbitrary standards set up in a red tape fashion, the percentages are worth very little. The Lieutenant-Governor desires that in future reports the Inspector-General will compare the number of offences under some of the principal classes, as dacoities, robberies, burglaries, and ordinary thefts for some years past, explaining the character of seasons in any degree abnormal, and endeavouring to ascertain what causes really influence the fluctuations of crime. This will be more interesting and useful than any comparison of bare percentages.

23. The number of cases reported as "false" is said by the Inspector-General, in his 186th paragraph, to have increased since the abolition of the "D" form; but it is not clear whether the cases put down by the police as false have been distinctly declared by the Magistrate to be so, or are only those which the police choose to call false. It is apprehended that the latter is probably the case. The order must be strictly adhered to, that no case is to be put down as false without the express order of the Magistrate. Provision has now been made for showing these cases in the returns. The D form served only to mislead. The Magistrate has now to pick out for himself the cases to be declared false, and he is the proper person to make this selection.

24. The number of acquittals at the sessions courts is, as the Inspector-General points out in his 110th paragraph, very large in some districts; but there is an error underlying the figures actually given in this paragraph which vitiates the conclusions drawn as to particular districts. The number of acquittals in each case is taken from Column XVII. of Statement A 1 of the district returns, and includes not only acquittals on commitment, as the Inspector-General's argument supposes, but acquittals on appeal. Besides this, however, some very material errors have been made in transcribing the figures from the district returns. In Monghyr, for instance, under cognizable crime the total number of acquittals by the sessions judge of all kinds during the year was 9, and not 202. Taking the result of commitments alone, the following districts show badly in respect of acquittals:—

Hooghly	...	...	52 acquittals to 20 convictions.
Moorsshedabad	...	...	58 " " 46 "
24-Pergunnahs	...	...	112 " " 50 "
Sarun	...	...	25 " " 35 "
Nuddea	...	...	54 " " 75 "
Dacca	...	...	43 " " 55 "
Beerbhoom	...	...	15 " " 22 "
Rayshahye	...	...	20 " " 29 "
Rungpore	...	...	36 " " 41 "
Patna	...	...	35 " " 62 "
Tipperah	..	...	45 " " 46 "
Pubna	...	...	25 " " 30 "
Bhagulpore	..	...	27 " " 25 "
Purneah	...	...	50 " " 27 "
Hazarcebagh	...	...	22 " " 22 "
Cuttack	...	...	23 " " 22 "
Chittagong	...	...	32 " " 40 "

It is possible that there is something lacking in the agency conducting the prosecutions. The Lieutenant-Governor thinks it would be worth while trying the experiment of ordering an Assistant Magistrate to prosecute important cases at Sessions on behalf of the Crown, and will direct this being done in some districts. Generally it may be said that the proportion of acquittals to convictions in some districts seems to indicate something very radically wrong. Either cases are improperly committed, or the mode of trial results in a failure of justice.

25. Under the first class of offences (those against the State, public tranquillity, &c.) the increase is chiefly remarkable in cases of riot and unlawful assembly, which have risen from 1,496 to 2,502, of which 37·09 per cent. were prosecuted to conviction by the police. Sylhet, Backergunge, and Jessore, have an unenviable pre-eminence in this class of crime. In Purneah and Pubna the police failed signally in dealing with it, convictions being obtained in only 16 out of 85 cases in the former, and 15 out of 113 in the latter district. The great increase in this offence is matter of astonishment, as no known causes for it can be found. The Lieutenant-Governor hopes that it is not caused by undue activity in hunting up and prosecuting cases of this kind. The Lieutenant-Governor is aware that violent riots, caused by rich and powerful people taking the law into their own hands, have been the bane of Bengal in past times. This cannot now be endured, and serious breaches of the peace must be put down with a strong hand, but the police will not make up for failure to detect dacoities and burglaries by dragging to light and harassing people about petty quarrels and affrays which have ended in nothing serious, and do not really threaten danger to the tranquillity of a district. It is hoped, then, that there has not been action of this kind.

26. In the class of serious offences against the person, murders have decreased slightly, from 331 to 312. Only 139 cases were detected, and of 837 persons arrested only 275, or 32·8 per cent., were convicted. This is an unfavourable result. Of seven murders by dacoits, five are stated as prosecuted to conviction according to the narrative, and that results seems favourable (but the table shows only four). In nine cases of murder by poison, only one was detected—a result very much to be regretted, for it is greatly to be feared that the use of poison is not unfrequent, especially in the eastern districts of Bengal. Of 288 “other murders,” 130 were either wife-murders or connected with women in some way; 49 arose from quarrels about land, &c.; nine were done by lunatics; 24 were child-murders, many of which are committed for the sake of the ornaments so commonly worn by children; seven were cases of thieves; two arose from caste disputes. One-fourth of all the murder cases comes from Jessore, Backergunge, Midnapore, Sylhet, and Dinagepore. The hot temper of the people of the “tidal districts” is proverbial in Bengal, and their habits of living in separate houses instead of in villages may, as the Inspector-General suggests, tend to free them from the social restraints of communal life. The police of Jessore and Dinagepore were most successful in dealing with murder. The Inspector-General is of opinion that, save where family honor is

concerned, there is little concealment of murder in Bengal, and that the police are as successful in dealing with it as the police of any other country. The Lieutenant-Governor cannot, however, feel satisfied with the recorded results.

27. In culpable homicide the police got convictions in 44 per cent. of the cases reported. Rape cases turned out badly. Grievous hurt had risen from 597 to 750 cases; convictions were obtained in 413. The crime of administering stupefying drugs (the latest form of thuggee), has risen to 26 from 16 in 1870. These cases are generally the work of associated gangs; 12 cases are stated to have been detected. The Lieutenant-Governor considers that the most unremitting attention of the Magistrates and the police should be constantly devoted to this crime, and that the Inspector-General should very carefully trace its ramifications through the country. There were 154 cases of kidnapping, in 33 of which only was conviction secured; 331 persons were put on trial, of whom 86 were acquitted at sessions, and 162 by the Magistrate, while 71 in all were convicted. The subject of the procuring of children for purposes of prostitution is under separate consideration at present. The Inspector-General is of opinion that many children are procured by prostitutes of the Boishtob caste by purchase or gift from poor parents. Such a mode of obtaining children can hardly be described as kidnapping, and recent returns laid before Government by Commissioners seem to show that the number of children in brothels, not being the offspring of the women themselves, is smaller than has hitherto been supposed.

28. *Paras.* 149-161.—There is an increase in the total number of serious offences against property reported from 13,313 to 15,086

Offences against property.
Dacoity cases were 361 in 1871 against 345 in 1870—an increase of 16 cases; but this crime is far below the proportions to which it had attained in 1867, 1868, and 1869, when the cases were 552, 523, and 473, respectively. There may be said to have been of late years a general decrease. This year 87 cases were detected, and 407 out of 1,582 persons arrested were convicted. The worst districts for dacoity are given in paragraph 154 of the report. Backergunge heads the list, followed by Purneah, and in both districts the police have failed. The District Superintendent of Backergunge was removed as not being fit for the post, and it is hoped that the present superintendent is doing better. In Purneah the state of things is very bad, and the utmost attention of the controlling authorities must be given to the matter. Midnapore comes next. Here, under Mr. W. P. Davis, the police are reported to have been successful, but the number of dacoities has not diminished in the year under report. In Hooghly Mr. Larymore has done much to break up the gangs which made that district notorious. Dinapore has also done well, getting convictions in 9 out of 12 cases. There were some very bad cases both of murder and dacoity in Hazareebagh, and the police were very unsuccessful in dealing with them. The cases in the 24 Pergunnahs, and sometimes almost in the very suburbs of Calcutta, are very lamentable, and no effort must be spared to put them down.

29. The various descriptions of dacoity reported stand thus to one another: 252 cases "in houses," 31 in the fields or jungle, 47 on the

highway, and 31 on the rivers. The perpetrators of house dacoities are said to be generally local bad characters, others are no doubt committed by practised criminals, some of whom come from long distances by rail or in boats. As to river dacoity, the Inspector-General says that it is surprising that cases are not more numerous. It may be doubted, however, if we know the real extent of this crime. Both late and present Commissioners of Dacca think that all such cases are not reported. In dealing with it so far as known, the police have admittedly failed. The subject has, however, the Lieutenant-Governor's particular attention, and it has been intimated in paragraph 8 above, that the effect of a steam patrol will be tried. The Lieutenant-Governor will not rest satisfied till much greater success is obtained in dealing with dacoities and serious robberies. The question of re-establishing a small detective department is still under the Lieutenant-Governor's consideration.

30. Of minor offences against property, 35,250 cases were reported against 27,991 in 1870, an increase of 26 per cent. If to these be added the cases of lurking house-trespass or burglary from Class IV. (in reality generally petty offences), we get a total of 48,763 cases reported during the year. Of these 9,864 were not enquired into, 10,141 were detected, and convictions were obtained against 15,310 persons. In 1870, out of a total of 39,992 cases, 9,807 were not enquired into, 11,004 were detected, and 14,593 convictions obtained. The number of cases stated as detected has fallen, though the crime as reported has increased, while a slightly larger number of persons have been convicted. Petty burglaries and thefts ran up to 44,052, of which only 7,844 were detected—the convictions being 11,623 to 8,704 acquittals. This is a class of offence with which the police all over India have great difficulty in dealing. If it were possible to believe that all the cases were reported, even the small number detected would not be so very bad, comparatively speaking; but it is feared that this is far from being the case.

31. The Lieutenant-Governor is glad to see that cattle-theft is not very prevalent in most part of these provinces.

32. His Honor has remarked with surprise the absence of any detailed comments in the Inspector-General's report on the prosecutions for bad character, which have increased from 907 in 1870 to 1,695 in the year under review. He observes, however, that the Commissioner of Dacca speaks of a change of practice by which each person is counted as a case, which was not formerly the practice. The law in regard to demanding security from persons of bad livelihood is a very effective engine when discreetly used, though it is also open to much abuse, if the police, unable to detect crime, seek to make up for that failure by taking up so-called bad characters. The law is, the Lieutenant-Governor apprehends, very unequally worked in different districts. It should be very closely watched, and the modes in which it is put in force in different places carefully compared. In future reports a table showing the results of these prosecutions in each district should be given and duly commented on.

33. In connection with this subject, the Lieutenant-Governor would wish to have particulars of the system alluded to in the Inspector-General's 187th paragraph, and some account of the nature of the

surveillance exercised over the persons referred to as released convicts and bad characters. While 37,215 persons are returned as under surveillance, in the next paragraph the number of absconded offenders still evading justice is shown at 4,291. This return of absconded offenders calls for extreme attention from the police. It may be feared that in small cases as well as in great, it too often happens that a man against whom a warrant has issued gets out of the way till the matter has blown over, and in the end escapes trial altogether, because the case is forgotten, or because the prosecution being ended there is little disposition to go again into a troublesome case.

34. Too much importance cannot be attached to dealing sufficiently with the professed criminal classes. The Inspector-General refers to some of them in paragraph 201 of the report. The Lieutenant-Governor would wish to have some explanation of the grounds on which the Ferazies are stigmatized as a class of the kind. They do not appear to have been mentioned in that character before. Further particulars should be given of the Bodyas, their places of residence, their habits of wandering, their language, and so on. As much information as can be got regarding them should be forwarded in a special report. It should be ascertained if they are the same as the Beders of Southern India. The Bindis also require looking after, and the Mugheya Domes, who have been notoriously guilty of thefts and burglaries in the Patna Division—also the Rajwars of the Behar and Chota Nagpore frontier. The Inspector-General will, it is hoped, enquire fully into this subject of criminal castes.

35. The police have been very successful in excise cases. Mr Larymore's operations in detecting smuggling in connection with Chandernagore were most creditable to him.

36. The railway police seems to have worked successfully, getting convictions against 78.5 per cent. of the persons arrested by them.

37. In non-cognizable offences 78,413 cases occurred against 71,158 in 1870, the increase being chiefly in cases of assault. Some of the local reports attribute increase in such cases to the diminished stamp duty. Process issued against 111,719 persons, of whom 77,987 actually appeared, and 38,629 or almost half were convicted, 16,300 being discharged without trial, and the rest acquitted. The police are a good deal employed in preliminary enquiries into such cases. The practice is obnoxious to some objections, but, on the whole, seeing how few and far our criminal courts are, and how much they are made the scene of an excessive litigation, the Lieutenant-Governor is inclined to think that a local sifting through the police may be proper in many cases, provided great care is taken to entrust such duties to officers of rank, standing, and character.

The most prominent of the minor classes of cases have been dealt with in reviewing the separate reports of the Commissioners of divisions in which crime of all sorts has also been dealt with in greater detail than in the present resolution. The subject of petty offences is, therefore, not further pursued here.

38. *Paras.* 210—213.—In these paragraphs the Inspector-General of police institutes a comparison between the returns of serious crime in 1851, 1861, and 1871 in certain districts of Bengal, for which returns are available, and from these he seeks to establish the great improvement which has taken place in the last ten years since the new police was established. The results no doubt show a great and gratifying diminution in violent crimes against property in the last twenty years; but the decrease was greater between 1851 and 1861 than it has been between 1861 and 1871. Much of the improvement is no doubt due to the general progress of the country; the establishment of increased magisterial agency; the opening of roads, and special measures of repression adopted towards dacoits. The Lieutenant-Governor does not know that it can be claimed as to a great degree attributable to the operations of the regular police so far as regards direct dealing with crime. Still he is very ready to give the police force every credit for many good qualities, and to recognize all the detective ability which it may gradually learn to show. The want of any one departmental head charged with the cognizance of crime under the system still now in vogue, which relieved the Inspector-General and his deputies of that duty, and the dubious position of the police in their relations with the magistracy, has hitherto put the force in a difficult position, and made it impossible to judge properly of its merits or demerits. Now that this is remedied, officers and men may depend upon it that they will be fairly and impartially estimated by the substantial results of the work done by them.

39. The Inspector-General objects to the employment of the police in miscellaneous duties, such as the census, and so on, and complains that they are prevented from devoting themselves to the detection of crime. The great drawback to the efficiency of the Bengal police, as testified by almost every district officer, is their want of knowledge of the people and localities of their various circles. The Lieutenant-Governor does not believe that any employment which takes them out of their station-houses and makes them move about the villages, can have a very detrimental effect upon them in this respect. They are the only local agency the Magistrate at present has in Lower Bengal, and as such he must utilize them in many ways. It is the characteristic of a regular police force all over the world that they do not excel as detectives but are useful as a preventive force, and for the regulation of many things beyond the dealing with actual crime. The Lieutenant-Governor hopes that the Bengal police will both make themselves generally useful, and will gradually acquire a fair measure of detective ability. They will be better able to do all this when they are relieved of much of the duty of process-serving.

40. As the remarks contained in the 22nd paragraph of this resolution have already shown, the Lieutenant-Governor quite agrees with the position taken up by the Inspector-General, that it is unfair to judge of the working of the police merely upon comparison of figures of convictions and acquittals, and that the best test of efficiency is the way in which dacoities, serious riots, serious offences against the person, house-tresspass, and other heinous cases, are dealt with. The Lieutenant-Governor would always wish to have the careful opinion of the

local Magistrate and the Commissioner upon the working of the police before proceeding either to condemn or commend an individual officer.

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41. The Lieutenant-Governor has to thank the Inspector-General for his careful and interesting report. As under the new system Colonel Pughe will have much fuller means of information, His Honor has no doubt he will be able annually to lay before Government that complete review of the whole subject which the present arrangements contemplate, but which has hitherto been wanting.

MINUTE ON JAIL BUILDINGS.

Minute on Jail Buildings.

AFTER having seen a good many of our jails, I am more than ever convinced of the great difficulties which we have to encounter. It is evident that at some time or other a good deal of money has been spent on many of the jails, and substantial buildings still remain showing that they were not bad jails in the old style and fashion, according to the lights of our predecessors. But partitions have been so universally cleared away, the enclosures have been so generally thrown into one, and all attempt at separation of prisoners in separate yards has been so completely abandoned, that, to introduce anything like the regular system prevailing in other provinces of India and other countries, we must begin again from the very beginning. A Bengal jail, visited in the evening, when the prisoners have done their work and are all at large in the common yards, is a complete liberty hall. One meets a murderer here, a State prisoner there, a prisoner under trial a little further on—all wandering about in the freest and most unconstrained manner. One can hardly believe that this is a jail. And with such masses of prisoners all loose together, and the establishments and guards so weak as they are, I doubt whether we could attempt to introduce anything like discipline without fear of outbreaks; at any rate, the guards must be strengthened as soon as we begin to keep prisoners tighter.

The principal merit of the existing system seems to have been to render the prisoners so content that most of them have not been very anxious to run away. I am convinced that the very large commission allowed to the jailors has had a demoralizing effect in one sense, and led them to consider their charges as really manufacturing establishments, and prisoners as people to be encouraged and indulged so long as they keep the manufacture going. Nor have we the advantage of strict intra-mural confinement: it appears that extra-mural labor has been allowed whenever it is profitable. I find that the prisoners are constantly hired out to the municipality, to go about the town doing conservancy and odd jobs; sometimes they have even been hired to private persons. A stop should be put to these practices in all cases, except in those places where extra-mural employment of this kind may be specially sanctioned, *i.e.*, in some remote stations where labour is not to be had.

I could hardly have believed that prisoners under trial could be allowed to mix freely with the convicted prisoners: yet such seems to be the case in the majority of the jails of these provinces. Where there is an attempt to separate them, the common practice is to keep the under-trial and non-laboring prisoners together. But I find that these non-laboring prisoners are for the most part men confined as notorious bad characters: that is to say, professional thieves, robbers, and forgers, whose character is so notorious that they are kept in jail in default of security. Other prisoners may be convicted of offences of every degree—some of great turpitude,

some hardly involving moral turpitude; but these bad characters are the worst men to be found in the district, and with nothing to do they are certainly the worst companions for under-trial prisoners or for any other prisoners. It is absolutely necessary that immediate arrangements should be made to keep the under-trial prisoners entirely separate, and I have elsewhere directed that some cells should be made available to confine, when necessary, newly arrived prisoners in such a way that they may not have the opportunity of communicating with any others before they have been thoroughly examined.

I cannot gather that in working hours the convicted prisoners are classified with any reference whatever to their offences: they are only arranged with reference to their working capacities. At night they are necessarily locked up in separate barracks, and some attempt at classification sometimes is or may be made; but this is of little avail if they are all mixed up together throughout the day.

2. I have separately noticed what seems to me the want of discipline in the paid turnkeys, and the practice of making over the prisoners too exclusively to prison warders. I find, too, that some of the jailors live far from the jails, and only come at working hours—a practice which cannot be permitted.

3. It is very difficult to remedy existing defects without proper buildings, and we are in this position: that we have, for purposes of separation and discipline, as it were, destroyed the present jails, while the new central jails are in a rudimentary condition, very little advanced, and progressing very slowly. I could wish that some of the old jails had been left as they were; but now that the partitions have been pulled down, seeing how great the jail mortality has always been, and how little we understand these things, I shrink from taking the responsibility of going back. On the other hand, the effective punishment of crime is of all questions the most difficult and unsolved. Sanitation is a subject on which we have not got beyond the stage of mere guess-work; the theories of to-day contradict those of yesterday, and will probably be contradicted by those of to-morrow. I must say that I do not like spending an entirely disproportionate amount of our limited provincial resources in the attempt to build, all over the country, jails constructed on the sanitary views of the day, and to provide, at the expense of everything else, for a system of punishment of offenders which may not be very satisfactory after all. Already we are distracted, and our work kept back by finding that every new authority (and they are many in India) discovers that the plans of our central jails ought to be altered; while we are also told that they are being built at the wrong places, where no work can be found for the prisoners. Certainly they are all in the western and none are in the central and eastern districts.

4. After fully and anxiously considering the whole matter, I think that upon the whole the best course will be to push on rapidly the central jails now in course of construction, to employ a large number of prisoners on those jails and on the canal works at Dehree, and to do what we can to make safe and capable of discipline the Alipore jail, which is in fact a great central jail without any of the appliances of a central jail. Far too great masses of dangerous prisoners are now herded together at Alipore, and they are employed in large numbers in

the mill and on other works entirely outside the walls. The arrangements proposed would withdraw a large number of prisoners from the ordinary jails, and I would then take advantage of the reduction of numbers to make the existing jails, or as many of them as are in any way tolerable, serve our purpose for the present as well as may be, instead of attempting to build new-fashioned jails all over the country at once. With reduced numbers we may at any rate provide separate wards for under-trial prisoners, and perhaps for one or two other classes whom it is desirable to keep separate.

5. To carry on the central jails rapidly, as well as to provide the number of prisoners who can be utilized, and for whom there is accommodation of a sort at Dehree, will occupy almost as many prisoners as can be accommodated when the jails are completed, but very great care will be required in making the necessary arrangements. While none of these jails afford, and it will be long before they can afford, the means of separating the prisoners, the attempt to enforce order and discipline among the great gangs of men who are to be collected in them, and who are most of them imprisoned for considerable terms, will require both firm and judicious treatment, and a sufficiently strong guard. Already there are symptoms that caution is necessary. There was an outbreak among the central jail prisoners at Bhagulpore; there seems to have been a threatening at Dacca; and there was something more than a threatening in the great jail at Alipore. To-day a serious insubordination is reported from Sylhet. On the other hand, it was thought necessary to security to put most of the Bhagulpore prisoners in irons. The Executive Engineer says that he now gets very good work out of them; but I understand that there has been a heavy mortality, which must be carefully enquired into.

6. I have already indicated generally to the Inspector-General the classes of prisoners who should be sent to the central jails and public works. The greatest possible care and vigilance must be exercised in this respect, so as to exclude weakly men on the one hand, and dangerous and troublesome characters on the other. None such should be allowed where great gangs are employed on out-door works, much of which must be outside the walls. I have had reason to fear that, while the commission system makes the jailors look on the prisoners as their workmen, it will require much vigilance to guard against the temptation to send away the worst and most useless men. I have separately ordered an enquiry into what appeared to be a shameful abuse—the sending totally unfit prisoners from a district jail to the central jail at Bhagulpore, and I shall trust to the Inspector-General to be most careful that such abuses do not occur.

7. The Inspector-General of jails will be requested to submit detailed proposals for carrying out the measures indicated in this minute; and the Financial and Public Works Departments of this Government will be moved to find the money and the means to carry on the works as quickly as possible. The Inspector-General of police will also be directed to place himself in communication with the Inspector-General of jails, with a view to determine the guards which are necessary for security; and they will state whether it is necessary to apply for further aid from the military at the Alipore or at any other jail.

24th November 1871.

G. CAMPBELL.

RESOLUTION ON THE WORKING OF THE
JAILS OF BENGAL FOR 1871.

Resolution on the Working of the Jails of Bengal for 1871.

Dated Calcutta, the 12th October 1872.

RESOLUTION--By the Government of Bengal, Judicial Department.

READ—

The Administration Report of the Jails of Bengal for 1871.

THE Lieutenant-Governor must commence this review of the Jail Administration of the past year by expressing the regret with which he learnt of the death of Dr. Fawcus, the late Inspector-General, within a very few months of his appointment to the charge of the department. Dr. Fawcus was a valuable and experienced public servant, who had won the esteem and personal regard of all who were brought in contact with him.

2. In selecting Mr. Heeley, a judicial officer of experience, to fill the important post of Inspector-General, the Lieutenant-Governor was mainly actuated by a conviction that the whole question of jail discipline in Bengal wanted looking into from a judicial point of view. There had been much discussion with a view to rendering jails self-supporting; but whether in this endeavour due regard had been had to their function as places for punishment and deterrents from crime, was a subject that called for careful consideration and enquiry. The present report alone would justify the Lieutenant-Governor's choice of Mr. Heeley to fill the post and perform the duty in question, showing, as it does throughout, the great advantage of bringing a new class of experience and a new class of mind to bear upon our Bengal prisons. Mr. Heeley has the very cordial thanks of Government for his admirable report and for his efficient administration of the department.

3. The points in which it appeared to Mr. Campbell that the jail system of Bengal was defective, are properly stated in the preliminary chapter of the report. Manufactures and finance had obtained an inordinate share of attention. The penal object of imprisonment had been to a great extent overlooked, especially in the case of short-term prisoners. The want of this was especially marked in the case of lock-ups, where petty misdemeanants were simply detained and fed, and brought under no discipline worthy of the name. In the larger jails, a skilful workman was at once exempted from much of the hardship of his position. Educated prisoners had easy lives, writing in the jail offices with but too many opportunities of underhand profit. Classification was impossible. The paid warders were utterly without discipline, and useless for effective control. Prisoners' labor was sometimes hired

out to municipalities and private persons, to the great detriment of discipline. The arrangements for the separation of under-trial prisoners, a most important point, were insufficient in the extreme. Then, again, the charge of jails had within the last few years been made over to the medical officers in charge of stations, without any enquiry as to their individual fitness for such a serious charge. Changing this system, the Lieutenant-Governor made the Magistrate of the district the officer ultimately responsible for the proper management of a district jail, allowing him to recommend for the immediate charge either the medical officer or any of his magisterial subordinates, according to the special fitness of the man for the work required. To enable the Inspector-General to reform the state of things above depicted, it was resolved to relieve the district jails by pressing on the completion of the central jails and the remodelment of the Alipore jail, and to employ as large as possible a gang of prisoners on the irrigation works at Dehree on the Soane. Towards the accomplishment of these objects Mr. Heeley steadily addressed himself, his programme being thus briefly stated by him in paragraph 9 of his report:—

- (1) Sharper punishments for short-term men.
- (2) Improved discipline.
- (3) Removal of available prisoners to central jails and Dehree.
- (4) Improvement of Alipore jail.
- (5) Introduction of labor into lock-ups.
- (6) Reduction of jail rewards and clerical work.
- (7) Segregation of under-trial prisoners.

4. It may be desirable before going further into the history of the year, to refer a little more at length to the view taken by the Lieutenant-Governor of the past system, and that which he is seeking to introduce in its place.

In the first place His Honor would have it understood that he thoroughly acknowledges the merits of Drs. Mouat and Fawcett, who preceded Mr. Heeley, and the fact that they have worked a great improvement in the health, habits, discipline, and management of the jails. Bengal jails are much healthier, happier, and better conducted places than they were fifteen or twenty years ago. A system of intramural employment on manufactures has been very successfully introduced, and great and successful efforts have been made in the direction of economy of establishments and reduction of unnecessary expenditure. By these economies, and by the profitable character of the industries introduced, it has been especially sought to make the jails pay. As Mr. Heeley says, "the feeling that a jail must be made, if possible, to *pay*, has for some years been prevalent." In fact it has. The Lieutenant-Governor believes, been sometimes stated that the jails *have* been made to pay.

5. This question of profit may be dealt with first, because it is most easily disposed of.

To begin with, the Lieutenant-Governor may at once say that he

Jail profits. puts aside altogether all question of the "*indirect*" profits which it has been the fashion to calculate, and which are included in Table XI. of the report, the value of services rendered by prisoners to one another,

the value of their labor when working in their own jails or in their own gardens, and so on. If this is to be calculated on the one side, it should be added to the expense of jails on the other, and the thing would be as broad as it is long.

The money earned by prisoners working extramurally for the Department of Public Works, or otherwise, on anything else than jail buildings, is an undoubted profit; but then that was a sort of profit realized to a much greater extent under the old system by prisoners working on the roads, and moreover such labor is now directed by the Department of Public Works and not by jail officers. This earning, therefore, may also be put out of sight in examining the present system; and in fact as most of the prisoners are now employed intramurally or on jail buildings, there is very little outside profit of this class. It is almost, if not quite, confined in 1871 to the Rs. 8,249 earned from the Dehree irrigation works, nearly all the rest that appears in the statement being estimated value of work done on jail buildings.

6. The profits formerly credited to the Jail Department very largely consisted of supposed earnings of the Alipore Jail Press, which works for public departments, and puts its own value on the work done. It has lately been found that this work was much over-valued,* and though the Alipore Jail Press is, as Mr. Heeley testifies, a very good and profitable establishment, it receives no cash, and it is quite a peculiar institution, which can hardly be taken into account in considering Bengal jails generally. In fact, the Alipore jail is in its arrangements altogether exceptional. In addition to the printing press there is a great jute-mill, a regular power mill worked by steam, and on a very large scale. The profit of the mill is put down at Rs. 1,24,300, and it is certainly a very successful manufacturing establishment. To get at the true profit it would be right to deduct both interest on and wear-and-tear of plant, and a large proportion of the emoluments of the jailor, &c. But, at any rate, the employment of great machinery in a jail is something quite new and apart. The jute manufacture is a nascent and peculiarly profitable industry in Calcutta, and private competition will no doubt increase, and possibly affect the working of the jail mill materially.

7. The Lieutenant-Governor will put aside, then, the Alipore jail, and take the ordinary jails of Bengal, the 59 jails of which statistics are given. Excluding Alipore, it appears that the profit from the manufactures in all these jails, employing almost all the available labor not used for jail purposes, was Rs. 98,800 (paragraph 416 of the report). Or, taking the year 1870 (same paragraph), the last year in which the system which the Lieutenant-Governor found in operation was most fully developed, and before any changes were made, the profit was Rs. 1,02,600, say £10,260. What, it may fairly be asked, is that among so many jails? However little or much may have been the value of prison labor under any former system, the sum named above, representing, as it does, all that has been earned after so many years of this industrial system, leaves no room for a financial improvement effected, which can be looked on as anything but quite inconsiderable

* With reference to Mr. Heeley's 429th paragraph, the Lieutenant-Governor has already fully admitted that the Committee which settled press rates were in no way to blame, but only those who neglected the Committee's recommendation regarding rates for forms printed in great numbers.

when dealing with so great a subject in such great provinces. Of the whole profit a very large proportion—in fact nearly half—came from the Presidency and two or three other jails in the neighbourhood, where there were special facilities for manufacturing jute. The profits of most of the jails were very small indeed, and some made a loss. On the other hand, the very large percentage allowed to jailors so far overstimulated them in this particular direction as to lead to a very frequent neglect of wholesome and necessary rules regarding the employment of prisoners, and, in not a few instances, to a most culpable defiance of rules, when prisoners were improperly employed with a view to profit.

8. No doubt a good deal of saving of establishment has resulted from keeping prisoners within walls, rendering them content, and making them self-controlled by means of prison warders selected with greater regard to their talent and aptitude than to the character of their offences. It is difficult to compare the present expense with that of previous years, because the system now followed in regard to jail guards, &c., is different; but while no charge has diminished, it appears that for an average of about 19,400 prisoners in the years 1856—59, the cost of food, clothing, contingencies, and executive and hospital establishments, averaged about Rs. 8,24,000, and in the years 1860—64 fell to a much smaller sum; while in the last few years, with an equal number of prisoners, it has averaged nearly 10 lakhs, and in the last two cheap years has considerably exceeded 9 lakhs. The diminution in inferior establishments has probably been counterbalanced by the increased allowances to jailors and other superior officers; and indeed, if Dr. Mount had not effected many economies, the increase would have been greater than it is.

9. On reviewing the whole question of jail expenditure and income therefore, the Lieutenant-Governor is satisfied that the system lately in vogue has not resulted in such profit as to make that an overwhelming consideration in the present state of our finances. Undoubtedly in this as in other departments, comparing one jail with another, economy of management will be looked to as very important among other important things. But in comparing one system with another, the Government really need not take into serious account a little more or a little less profit from prison labor. The provincial finances are happily in a position to bear the charges necessary to the well-being of the country, and Government may properly regulate the conduct of its prisons to that end, and not with a view to the mere direct profit of prison labor, which is on a comparatively small scale after all.

10. A much more important consideration is the habit of regularity, and industry, and power of gaining an honest livelihood, likely to result from the industrial education of prisoners. We know but little the social life of the country, and have not been able, to any appreciable extent, to follow prisoners to their homes after their release; but the Lieutenant-Governor finds it to be the concurrent opinion of all the Magistrates and others with whom he has conversed, that released prisoners do not as a rule practise in freedom any of the trades which they have learned in jail. Here, too, His Honor fears that immediate profit has been considered more than future occupation.

And the system of hereditary castes no doubt much stands in the way. Agricultural laborers and others, who are taught to work looms and to make many good and useful things, go back to their old habits and ways as soon as they get out of jail. In many parts of these provinces there is, however, a great demand for simple artisans, bricklayers, carpenters, &c ; and men of various castes engage in these occupations much more than in some other parts of India, as also do many Mahomedans, who form so large a proportion of the population of Bengal districts. In Assam, in particular, there seems to be an extraordinary dearth of these tradesmen, and the Lieutenant-Governor has lately instructed the Inspector-General to try to make as many artisans in the jails of Assam as possible. Everywhere the same principle should be kept in view, viz., teaching the arts most likely to be followed afterwards. A released prisoner will not set up a complicated loom, but if he can earn 4 or 6 annas per day as a bricklayer, instead of $1\frac{1}{2}$ annas as a coolie or a thief, there is a chance that he may take to the former mode of livelihood.

11. Whatever the nature of the employment in jail, regular habits and continued industry must always be an advantage. But it would be rash to over-estimate the change in this respect. Mr. Campbell can testify from experience that in former days, when prisoners were worked on the roads in large gangs, they were, if considerably treated and directed, a very amenable body of men, and often or generally did a very fair amount of work. No doubt as regards the treatment of dangerous or difficult bodies of men, whether long-term prisoners, English soldiers, or any other class, there is now-a-days less resort to violence, and our officers have learned better to use method and discipline than in former days. But with respect to Lord Macaulay's remarks on the Alipore jail, quoted by Mr. Heeley (paragraph 296), it must be remembered that there was then no transportation, and that in the Alipore jail were collected desperate characters sent to undergo life and other very long sentences from distant provinces, as well as from Bengal; whereas the Alipore jail now in reality is only the largest of several Bengal central jails. The prisoners there may have been formerly treated with harshness and were not sufficiently employed. Latterly, working in large bodies in an open mill, without any surrounding wall, and all congregated as they were of an evening in the jail without dividing walls, the Lieutenant-Governor has thought that they had too much liberty. They have shown a temper not very amiable on one or two occasions lately, since a moderate discipline has been imposed on them, in itself an indication that the essential elements of penal discipline were wanting.

12 As regards penal labor and discipline, we are met in practice by the fact that in most Indian prisons the prisoners are not scowling desperate ruffians, with the stamp of professional robbers and burglars upon them; nor even are they generally idle vagrants who have unlearned the habit of work if they ever had any. By far the greater number of them are men of tolerably industrious habits, and it is only a rare exception when a man is at all refractory. Like all natives, they are very difficult to drive into European ways, but are very

easily led into intelligent and industrious habits after their own fashion. They readily reciprocate a little kindness and friendly feeling, consider themselves in a way the servants of the Government, and are very pleasant and biddable. It is not in human nature for a kindly man, who is much among such people, to be always driving them to penal labor calculated to expiate their crimes, especially when he has seen nothing of the judicial side of the question, knows nothing of the difficulty of dealing with the offences for which they are sent to prison, listens to their engaging stories of the circumstances that led to their being wrongly incarcerated, and is impressed with the belief that his first duty is to get profitable work out of them. It does not pay to be harsh with them. Hence it is probable that of late years jail officers have gone too far in the way of making the prisoners happy and contented, and have prided themselves on showing that their charges would not escape if they could. The Lieutenant-Governor has said that this must not be carried too far. But at the same time he fully admits that we cannot make all jail labor ultra-penal and expiatory in its character. We must be content if we can provide really punitive labor for a certain proportion of the prisoners to be applied under certain circumstances, and for the rest we must be satisfied to keep them sufficiently disciplined and regularly employed in moderate labor. For this purpose a good system of manufactures, such as has been established in Bengal jails, is undoubtedly most beneficial, and should be used to the utmost without being abused.

13. Most difficult of all is the sanitary question. Looking to

The sanitary question.

the terrible mortality that has prevailed in Indian jails, and in none more than in some of those in Bengal, the Lieutenant-Governor quite feels that it is inevitable that we should sacrifice much, if it is necessary to do so, in order to avoid such destruction of human life. He fully acknowledges that, whether the knocking down of partition walls and such changes in the arrangement of our jails have been mainly effectual or not in one way or another, by increased care and attention, the general mortality of Bengal jails has been greatly reduced. The last two years have however been particularly healthy in the country generally, and it would not be safe to take them as a reliable index. And indeed, after all, 45 and 40½ per thousand (the rates in 1870 and 1871), besides a few released on account of extreme illness, is far from a low rate. Things are not nearly so bad as they were; still, if we were dealing with free men, it might well be said that we must further alter our jails and our system till we decrease the mortality to a rate commensurate with that of the ordinary population. Mr. Campbell's impression is that, sacrifice what we may, we could not do that; that natives confined, disciplined, and forced into habits not their own, will always be liable to an abnormal death-rate. But, supposing we could, by much sacrifice of discipline and punishment, bring down the rate to a very low figure, there is no denying that we should be placed in a great dilemma, and that our practical jail difficulties would be immensely increased. His Honor's impression is strong, and he thinks that most officers of experience will bear him out, that the real terror of our jails is not (in any part of India that he knows) the jail discipline, but that men do not like to be taken from their

families. And what they much dread, or (what is more important) what the families and friends they leave behind them much feel, is the great probability that they will never come back again. With the rates of mortality we have had, and even with those we have, this probability of dying in jail is undoubtedly a very great deterrent. If we succeeded in making our jails very healthy, we should be driven to make them more disagreeable in other ways; and that is just what we cannot do. The harder the work and the discipline, the greater the death-rate, is the only sanitary rule that may be taken to be pretty generally true in Indian jails. From this dilemma we are, however, much relieved by the circumstance that we have not yet learned how to make jails completely healthy. If it were a mere matter of sanitary rule, as some people would have it believed, if we could be sure that a jail built on sanitary principles would be healthy, while one not so built is unhealthy, we might feel constrained to spend all our money on new jails and to take the consequences. The contrary is notoriously the case. Mr. Campbell has known many jails, native buildings, and such like, contrary to all the laws of sanitation, comparatively healthy; and he has known prisoners die like rotten sheep in the finest modern buildings. By care in various ways we may improve the general result, but we do not know how to ensure perfectly healthy jails.

14. Under all the circumstances the Lieutenant-Governor is not prepared, then, to sacrifice everything to a very doubtful sanitation. The Government will do what it can, but for the present, at any rate, it must accept a moderately excessive death-rate, and secure a good amount of discipline and a moderate amount of labor for all prisoners, and really severe punishment for a moderate proportion of them.

15. After all, however, it is much easier to see what is wrong in jails than to set them right, and the Lieutenant-Governor entirely acknowledges the justice of the remarks on this point contained in Mr. Heeley's 9th paragraph. In His Honor's opinion the question of punishment is one of the most unsolved and most unsatisfactory of all modern problems, and the conditions of punishment by imprisonment are the most unsettled and unsolved of all. In countries where there is every social facility and appliance, these prison questions are among the most puzzling that crop up, and give rise to the most contradictory opinions; and even when principles are accepted, they are most difficult to put in practice. In this country, where the people are such strangers to us, and so pliable that it is hard to judge whether we have produced any real effect or not, and where the instruments with which we must work are so little reliable for strict method and discipline, these questions become far more difficult. It is much easier to manage in an easy going way an Indian than a European jail, but it is far more difficult in India either to punish with any regulated measure, or to know what effect we have produced. We must do the best we can. The Lieutenant-Governor has done what he can, without complete confidence of a successful result. At any rate, as Mr. Heeley says, we must expect that whatever result there may be, it cannot follow but after a certain lapse of time.

16. The Lieutenant-Governor has given his general view of the labor question, and would wish it worked out as far as possible. But on the building question he still feels unsettled. He does not know

what answer to give to the difficulty Mr. Heeley meets with in the repeated assertion that everything is "*impossible till a new jail be built.*" It has been settled, in the order quoted in the latter part of Mr. Heeley's 6th paragraph, to complete the central jails, relieve overcrowded district jails, and retain most of these latter till we see further. But the question of division walls is very perplexing.

17. All the old Bengal jails had walls dividing the enclosure into compartments for different classes of prisoners. With few exceptions, all these walls have been pulled down upon sanitary grounds. The prisoners have been on the whole healthier; but whether because the walls were pulled down or for other causes, no man can say. Considerations of discipline and jail management point to the propriety of building them up again; fear that if unhealthy years should follow, it will all be set down to the partition walls, comes in the way. It is only possible to compromise the matter. The Inspector-General must take each jail by itself; separate the prisoners where he can separate them without very great sanitary objections, especially in the case of large jails containing many dangerous prisoners. And at all hazards he must separate the under-trial prisoners. For the rest we must submit for the present to the want of classification and separation so far as it cannot be helped.

All the new central jails are being built on the radiating principle, with separation walls between the wards and open palisades on the inside of the circle.

18. Turning now to the details of Mr. Heeley's report, the Lieutenant-Governor observes, with reference to Chapter II. (jail officers),

Jail officers.

that Mr. Heeley has taken a thoroughly correct view of the objects and intentions of the order that the immediate charge of jails is not to be given to medical officers as a matter of course, and that district jails are to be put under the general control of the Magistrates. It is therefore hardly necessary to repeat here the reasons for this step. As Mr. Heeley says, a man may be an admirable medical man and yet very unfit for the executive charge of a jail. But, on the other hand, medical men who enter the Civil Departments of the Indian service generally feel, like most Indian officers, Civil and Military, that in this country there is much good work beyond the limits of a strict profession which a man thrown into an Indian district may do with advantage to the people, the country, and himself. Most of our medical officers are happily men ready to turn their hands to useful and effectual work, and the majority of the civil surgeons have, as Mr. Heeley observes, the great advantage of sufficient leisure to attend to jails. Accordingly, there has been in this respect but little difference in practice, and the great majority of our jails are still in the hands of medical men. On the other hand, as is truly stated, many of them have little experience of the country, of office routine, of the system of accounts, and almost all have been necessarily without opportunity of obtaining the judicial view of prisoners and prison questions. It is every way advantageous that the officer in immediate charge of a district jail should be under the general control of the head of the district, according to the system which has now been generally introduced and applied in all departments of this Government.

There is also no slight advantage in the means which a single head affords of preventing clashing between different departments; *e.g.*, between the jail officer and the police officer who supplies the jail guards. Similarly, it may be hoped that the not unfrequent clashing and complaints between the jail officers and the officers of the Department of Public Works who build and repair their jails will be obviated, now that the latter also are being placed under the general control of the common district head.

19. Mr. Heeley's suggestions that the selection of officers for the charge of jails should be reported through his office, and that the title of the officer in charge shall in future be Superintendent, have the Lieutenant-Governor's approval. Orders will be given accordingly.

20. The following officers are selected by Mr. Heeley as specially deserving of commendation for their jail management:—Dr. Lynch (Alipore), Dr. Mackenzie (Presidency), Drs. Coates and French (Hazareebagh), Dr. N. Jackson (Midnapore and Dehree), Mr. Bensley (Rajshahye), and Dr. Bowser (Rungpore). The Lieutenant-Governor is able to endorse these praises generally, but hitherto no one has really succeeded in the management of the European Penitentiary at Hazareebagh, and it will probably be in an unsatisfactory state till it is put in charge of an officer of military habits.

Mr. Heeley also refers to the officers named on the margin as having taken interest in their jails or sent in good reports.

Dr. Thompson, Hooghly.
 „ Richards, Bankoora.
 „ Thornton, Arrah.
 „ Earle, Krishnagur.
 Mr. Mathew, Monghyr.
 „ Lyall, Dacca.
 Dr. Russell, Gva.
 „ Barker, Beerbhoom.
 „ Sconce, Midnapore.
 „ Chundai, Deoghur.
 „ Stewart, Poon.
 „ Wilson, Manbhoom.
 „ Inthurn, Durrung.

21. Of the subordinate officers of the department, Mr. Dobson, Deputy Superintendent of Alipore; Mr. Wilson of the Presidency jail; Mr. Vieux, of Hazareebagh central jail; Mr. Sankey, of Hooghly, and Mr. Courtenay of Midnapore, are singled out by the Inspector-General as worthy of notice.

As regards Mr. Dobson, however, though undoubtedly useful as the Superintendent of a manufacturing establishment, from which also he drew large emoluments, the reports show that he violated jail rules and orders, and the Lieutenant-Governor cannot give him unreserved praise. He has now gone to Burmah. The jailors of eighteen other jails are named in paragraph 20 as having been favourably spoken of by their superiors. The Lieutenant Governor accepts the list on the Inspector-General's representation, but wishes it to be clearly understood that when jail rules are neglected or evaded, he cannot admit any claim to approbation on account of manufacturing or any other kind of success.

22. On the question of the relative advantage of European and native jailors, the Lieutenant-Governor is quite of opinion that it is not desirable to employ Europeans unless they can be sufficiently paid, and he has no doubt the Inspector-General will judiciously discriminate between the respective merits of Europeans and natives according to the circumstances of each jail, and the character of the applicants for appointment.

23. The Lieutenant-Governor also agrees that it is desirable to regulate establishments on a careful consideration of the circumstances

of each jail, and that when jails have been classed for purposes of salary they should be kept in the class allotted them till they are permanently transferred, without reference to casual variations of population.

24. The Lieutenant-Governor considers this chapter especially valuable, and particularly thanks Mr. Heeley for it. But as it brings to

Judicial statistics.

light many facts that affect the judicial administration, and the Lieutenant-Governor has a good deal yet to say about jails in connection with the report, while he has somewhat scanty materials for reviewing the judicial administration, he will reserve this chapter for remark in connection with the subject of criminal justice.

25. It may, however, be noted that the number of prisoners of all classes in the jails at the close of the year was 18,928, as against 18,626 at the end of 1870, and 20,571 at the close of 1869. Eighty-two prisoners were released on account of disease or infirmity; 71 for good conduct or by Government orders; 19 were transferred to lunatic asylums; 759 died; 219 escaped; and 71 were executed.

26. With reference to the question raised by Mr. Heeley as to the extent to which the Medical Department should have control of sanitary arrangements, the Lieutenant-Governor thinks the general control of all the officers attached to the jail, and the general sanitary arrangements, must lie with the jail officers and jail department, but professional treatment will of course be regulated by the Medical Department, and full attention will be paid to their recommendations in regard to sanitation and cognate subjects.

27. The Lieutenant-Governor understands that it has already been settled with the Medical Department what forms and returns are to be submitted, and that a considerable reduction in clerical labor has been effected.

28. The Lieutenant-Governor's impression is that the admissions

Sanitation.

to hospital and percentages of deaths to sick vary so much according to circumstances and the idiosyncracies of particular officers, that they cannot be taken as giving any reliable standard for lay use, and their real value can only be estimated from a medical stand-point. For general purposes we can look only to the mortality. It may not be always an exact test, but it is sure so far as it goes, and it is generally a pretty correct general index to healthiness or otherwise. In connection with mortality it would, however, always be proper to notice releases on account of sickness, as these may really affect the comparison, many of them being discharges of persons whose recovery is, in fact, improbable.

29. On the whole, speaking *comparatively*, there is every reason to be satisfied with the mortality results of the year, the deaths being less than in previous years, and little more than 40 per thousand. Cholera was happily not frequent. Fever seems wonderfully little fatal in Bengal jails, the character of the districts considered. But dysentery and diarrhoea are great scourges. As is usually the case, the autumn is the most fatal season. The tables in regard to mortality with reference to age and sex, kind of imprisonment, and the employments in jail, are interesting, but there is not yet a sufficient basis for safe

induction on these subjects. The most notable feature is the greater mortality among prisoners employed on manufactures. This is very important, and does not seem to be shown by the figures. The Lieutenant-Governor observes, however, that in a subsequent part of his report the Inspector-General throws some doubt on this result as compared with that of out-door labor, and the Lieutenant-Governor will only here beg that the subject may have particular attention. It should be carefully discussed in next report.

30. The Lieutenant-Governor feels doubts as to the alleged bad effect of transfer from a less healthy to a more healthy jail without any extreme change of climatic conditions. His Honor would like this subject to be pursued further.

31. No doubt overcrowding must be dangerous, and, now that there is employment on central jails for large numbers, it should never be permitted. Still, it may be remarked on the table in paragraph 167 that of the overcrowded jails there named, the mortality tables show Meethaporo (in Patna), Tipperah, Pubna, and Durrung, to have been remarkably healthy in the past year, and Sylhet is considerably above the average in healthiness, as also is Midnapore, though it is true that this last jail is less healthy this year (1872) for reasons which have been lately under consideration. The Maldah jail is a mere lock-up, and Baraset, as explained, is set apart for old and infirm prisoners. Thus, of the whole list Tirhoot, very bad, and Bhagulpore, a little above the average mortality, are the only jails to be fairly set against the jails which, though overcrowded, were more healthy than the average.

32. As respects the relative merits of large jails and small, the Lieutenant-Governor thinks that the small jails instanced by the Inspector-General, being mostly in Assam or specially unhealthy, are hardly a fair specimen; and Mr. Campbell is still inclined to the belief that, other things being equal, small and moderate jails are on the average more healthy than the very large jails where sickness once introduced runs through great masses of prisoners.

33. The figures regarding the effect of incarceration on general health depend on so arbitrary a determination of good, indifferent, and bad health, that it is hardly safe to attach much weight to the results shown, so far as we have yet gone.

34. As regards native prisoners, Mr. Heeley's remarks on diet seem very judicious, and the Lieutenant-Governor has full confidence in his dealing with the whole subject in the best way. With reference to what is said of the Dehree practice, Mr. Campbell finds that the Hazareebagh prisoners work all day without food, and he thinks perhaps a little parched gram or some such food might with advantage be given in the middle of the day to prisoners employed all day long on public works; but he will leave this for the Inspector-General's consideration.

35. As regards European prisoners, the Lieutenant-Governor does not quite understand the facts. Mr. Heeley speaks of a scale settled in 1870, and now followed, but in 1871, there was in use at Hazareebagh a scale which it was necessary to alter and to some extent reduce. His Honor has this year found the scale to be still larger, even to a startling degree, than the military and Agra scales. He would wish to have a clear report on this matter.

36. The Lieutenant-Governor gladly acknowledges that most of our jails deserve the credit Mr. Heeley gives them for cleanliness and freedom from smells. The sub-divisional officers should attend to their lock-ups in this respect, and that duty will be impressed on them. No doubt the Inspector-General will judiciously regulate the subjects mentioned in paragraph 181, and settle the relative uses of dry and wet conservancy. The Lieutenant-Governor will be especially glad, for many reasons, if Mr. Heeley can establish a manufactory of glazed earthen vessels, as he proposes.

37. The Lieutenant-Governor has reserved to the last Mr. Heeley's comparison of the healthiness of different jails and groups of jails, all of which is most interesting and important.

The most marked case of excessive mortality is Tirhoot, and the neighbouring district of Chumparun is not far behind, while Sarun in the same group was healthy in the year under report. The Lieutenant-Governor has since been demi-officially supplied with figures showing the mortality in the different jails of Bengal during the last fifteen years, and they are appended to this resolution. The general result is to show that none of the the three jails abovementioned have been healthy jails, and in Tirhoot and Chumparun there is no sign of progressive improvement. The overcrowding in Tirhoot need not now be continued for a day. There are ample means of disposing of the prisoners.

38. In paragraph 117 Mr. Heeley shows that in the damp and saline soil of North Behar, the earthen beds which have been introduced in many jails are unsuitable. Much harm is often done by forcing on very different provinces inventions suited to one. In many districts the earth-bed seems to be really a very successful institution. But in Assam the Lieutenant-Governor met with very loud and apparently just reclamations against its forced use, and it may very well be unsuited to the saline soil of Behar. It is reasonable to suppose that in Behar we shall do better to take the North-Western Provinces rather than Bengal for a model.

39. As respects Meethapore (Patna), cholera notwithstanding, it was remarkably healthy in the past year, and the Lieutenant-Governor believes is not markedly unhealthy this year. It has no doubt been unhealthy from time to time, but Mr. Heeley should analyse past returns and see how much is due to cholera and other epidemics, and how much to general sickness. He should also get the last returns for the present year and make a special report on this jail. The general result of the Lieutenant-Governor's visit to it last month has been to incline him to retain it and enlarge it. It seems very doubtful whether the sanitary experiments proposed are possible, especially what is called "thorough drainage"; but His Honor will await the Inspector-General's report.

40. Bhagulpore must be narrowly watched. It was formerly very unhealthy. In the past year there seems to be some doubt whether the prisoners working under the Public Works Department were not too much exposed. The Lieutenant-Governor is very glad to see the healthiness of Monghyr for some years past, as it was formerly shockingly unhealthy. Shahabad has also been healthy for

some years. Gya is much more doubtful; but the greater number of the prisoners may be sent to Hazareebagh, so as to give plenty of room to the remainder.

41. The result in Dehree was sufficiently favourable, but it is to be feared that it is less healthy this year.

42. The jails of the Sonthal Pergunnahs and extreme west of Bengal, which are grouped together, seem to be healthy, and those of Beerbhoom and Bankoora should be well utilized. The Beerbhoom jail seemed to Mr. Campbell to be very good among Bengal jails. Rajmehal is really nothing but a sub-division, and prisoners need not be kept there if they are not healthy. The Chota Nagpore jails seem all to stand well, though the accommodation in some of them is very deficient.

43. The same may be said of the Orissa group, which are all tolerably healthy.

44. The North Bengal group seems to be that in which the most general unhealthiness now prevails. Although Purneah, Dinagore, and Maldah are not very populous districts, and may have been reduced by fever, Rungpore and the neighbouring tracts are populous to a degree, which seems to refute the idea of excessive general unhealthiness in that country. Necessary efforts must be used to reduce the mortality in the Rungpore and other jails; those jails which seem to be hopelessly bad being relieved of part of their population. Julpigoree is reckoned generally a healthy place. The other prisons of Bengal Proper seem to have been generally tolerably healthy, as jails go.

45. The Lieutenant-Governor is very greatly struck, on looking back to the results of the last fifteen years, to see how healthy the jails of Central and East Bengal have been as compared to those of Behar; while, as regards European health at any rate, the general character for healthiness of those tracts respectively is supposed to be just the contrary. From fifteen to ten years ago, and even later, Behar jails seem to have been perfect charnel houses, and the average mortality of fifteen years still stands from 8 to 12 per cent. per annum in the various jails of Behar; while the average of the same period for Nuldea, Jessore, Fureedpore, Dacca, Tipperah, Chittagong, Noakholly, Mymensingh, and Sylhet is between 3 and 4 per cent., varying from 2 per cent. in Noakhally to 5 per cent. in Sylhet. In Nuldea, Jessore, Fureedpore, Tipperah, and Mymensingh, it is under 3½ per cent. for the fifteen years. It is the same in Chittagong if we take the last ten years, and in Dacca and Sylhet if we take the last five years.

It is evident that Behar jails require very special attention.

46. Considering the state of the Burdwan district, the Burdwan jail does not show so much mortality as might have been feared.

47. The jail in Bengal Proper the state of which most needs explanation is Hooghly. The mortality for the past year is 8 per cent. In 1870 it was 7 per cent., and the average of fifteen years is 11 per cent. Hooghly is a healthy place. The fact that the jail is in the town is no reason for great mortality. It is one of the principal of our manufacturing jails, and quite the most profitable out of Calcutta.

The Lieutenant-Governor would like to have a special report on the unhealthiness of this jail. It should be particularly noticed in connection with the effect of manufactures on health.

48. The health of the Presidency jail has been extraordinarily good in the past year, and for several years past it has been good. This result seems to tend to contradict the theory assumed in an earlier part of this resolution, that hard work and hard discipline increase the mortality among natives; for in no jail in this province are the prisoners worked and disciplined so thoroughly as in the Presidency jail. Most of the work has been breaking stones, picking oakum, &c., and not hitherto manufacture. Perhaps the healthy situation on the maidan has something to do with the low rates of mortality. The Presidency jail, standing apart and worked on a different system (which the Lieutenant-Governor hopes will not be too much assimilated to that of other jails), should never be lost sight of for comparison in all questions affecting Bengal jails.

49. In Assam the Lieutenant-Governor observes that Gowhatty and Goalpara have generally been unhealthy jails, while Durrung has always been tolerably healthy. Gowhatty, however, in the year under report and some other years so unhealthy, seems to have been singularly healthy in 1870. No doubt, as many prisoners as possible should be sent to Durrung. The indigenous bamboo platforms should throughout this province be substituted for earthbeds, if the latter anywhere remain.

50. The Lieutenant-Governor entirely agrees with Mr. Heeley as regards out-door work in Assam. All jail considerations cannot be sacrificed to the need for labor to keep the stations tidy. His Honor authorizes the Inspector-General to prohibit extramural labor wherever and as far as he sees fit, and especially begs of him to be sure that the instruction for teaching the prisoners the trades for which there is most demand in Assam, is fully and effectively carried out.

51. The Lieutenant-Governor does not see why any of these European prisoners. prisoners should be kept at Alipore when the Presidency jail is at hand. Explanation is required on this point. Both the Presidency jail and Hazareebagh seem to be healthy for Europeans.

52. The Lieutenant-Governor has already issued detailed instructions on this subject, and only general remarks will be necessary. First of all, Buildings. however, he would once more beg of the Inspector-General to bear in mind in all his arrangements for different districts, the great differences in climate, population, and habits between the different provinces under this Government. His Honor has already noticed some minor matters in which things suited to one part of the country have been unsuitably forced on another. It would be worth investigating whether the very extraordinary mortality in all the Behar jails ten or fifteen years ago had any connexion with any unfortunate application to Behar of Bengal forms of building, diet, &c.

53. As regards the old Bengal jails, they appear to have been by no means wanting in the means of segregation and classification. They were generally well divided into compartments. It is because the dividing walls have been swept away on sanitary grounds that there is now no separation.

The Lieutenant-Governor has already said that for the present, at any rate, we must make the best of these jails. In Bengal Proper they have not been unhealthy as jails go.

54. As regards some of the very inferior jails mentioned in Paragraph 184, His Honor has under consideration the re-arrangement of districts and some of the more recently formed districts may be again reduced; therefore, he would not undertake new jails at such places till he can see further. Of the place which Mr. Heeley mentions, Chumparun has to all appearance a very decent small jail; Sarun jail, which the Lieutenant-Governor has not seen, is also stated to be enclosed, and it has been healthy the last two years. Rajmehal, as already mentioned, is not really a district jail. At Hazareebagh a central jail is rapidly advancing. If Pubna is kept up as a district, there should certainly be a jail there.

Nothing is settled about Deoghur. The Inspector-General's report about Mymensingh is awaited; the proposed jail at Berhampore has been sanctioned; Gya and Meethapore (or Patna) jails have been already noticed; Ranchee is about to be visited, after which the Lieutenant-Governor will dispose of the Chota Nagpore jail questions.

55. As regards Assam, the Inspector-General is requested to submit plans for converting Durrung or Tezapore into an efficient jail of considerable size. Mr. Heeley has not seen the Tezapore jail, and does not seem to appraise it at its real value. It is already a very fair jail, with abundant space for more buildings, and the figures show it to be healthy for an Assam jail. The Lieutenant-Governor will await suggestions for improvements in the smaller jails of the province. Cachar may or may not remain a regular district, but plans for a small jail may be put in hand.

56. The Inspector-General already knows that the Lieutenant-Governor is most especially anxious to provide punishment and solitary cells as mentioned in his 193rd paragraph. Separate as distinguished from solitary cells are not much wanted for jail purposes in the present phase of our jails, though some separate compartments will be useful in the central jails, and they are wanted in under-trial wards and lock-ups. Mr. Heeley has received detailed instructions for the necessary cells and compartments.

57. The Lieutenant-Governor will be glad to have the Inspector-General's finally considered model plans for a district jail when they are ready; but as we are not now building new jails of this class, it is best to take time to settle the best plan to be used when we are about to build.

58. The Alipore jail has had particular attention; the additions and improvements are now well advanced, and will, it is hoped, be effective.

59. The plans for the central jails have had the Lieutenant-Governor's special attention. We have labored under much disadvantage in that they had all been commenced upon plans, several parts of which the practical officers concerned have united in condemning, and many discussions have ensued; while, as Mr. Heeley says, it seems often to happen that the least needed parts have been commenced first. In these matters there has been sometimes an unfortunate want of harmonious action between the jail officers and those of the Department of Public Works, which will, it is hoped, be remedied. Several defects in the plans have only come to prominent notice when actually seen on the ground. In consultation with the

Inspector-General, the Lieutenant-Governor settled at Bhagulpore several points which had escaped previous revision; and now at Hazareebagh he has gone carefully into some other matters which cropped up, in communication with Mr. Leonard, the Chief Engineer, who has also visited Midnapore very recently. No two people seem ever by any chance to agree about a jail plan, but we have done our best, and must hope for the best. There is now no stint of money or men, and the central jails are all being pushed on rapidly.

60. As regards the district jails at places where there are central jails, the Lieutenant-Governor is inclined to reconsider the question, and may possibly retain some of them as supplementary jails under the same Superintendent, since our central jails are hardly large enough to give a Superintendent, with no other duties, sufficient occupation, and there is some advantage in these supplementary jails. He is ready, therefore, to receive Mr. Heeley's proposals on this matter.

61. As Mr. Campbell has always pointed out, and the Inspector-General admits, no part of our jail system is more unsatisfactory than this. It is a ruinous state of things if the short-term prisoners of sub-divisions—that is most of the short-term prisoners of the province—are not properly punished in any way. The Lieutenant-Governor has fully gone into the subject with Mr. Heeley.

In the first place prisoners must not be kept at lock-ups so much as hitherto. The Lieutenant-Governor has relaxed the quasi-military police rules, and a small thief, or even two petty thieves of no dangerous character, may now be sent off with one constable to the sudder station, instead of being kept till a regular guard can be inter-departmentally arranged, or not sent at all because such a guard is not to be had. No general rule can be laid down, as so much depends on distance, means of transit, and accommodation; but the one rule should be to reduce lock-ups to the minimum of prisoners. For such short-term prisoners as must be kept there, much discipline is impossible; but the practice of employing them outside about the place has been prohibited. They must at any rate be shut up, and set by task-work to grind flour, husk rice, pound bricks, or whatever can be found for them. Mr. Campbell has a strong belief that for such short-term prisoners solitary confinement with measured labor and short diet is very appropriate, and he procured the insertion in the new Criminal Procedure Code of a provision enabling second class Magistrates to sentence to solitary confinement. As the Inspector-General knows, he has been asked to add to lock-ups, wherever practicable, compartments which may be used for solitary or separate confinement as well as for the ordinary purposes of separation.

It is seldom necessary to provide much accommodation for women at rural lock-ups, and the Lieutenant-Governor has observed that a large proportion of space is generally wasted, being kept for women who never come. When by chance there is a woman prisoner, she can generally be kept at the police station till tried, and if sentenced, sent to the head-quarters.

62. All Mr. Heeley says on this subject is connected with the general want of discipline, laxity in regard to jail rules, and habits of

Escapes.

confidence and content prevailing in Bengal jails. The only wonder is that many more do not escape; but, as he says, they do not generally find it to answer: and besides confidence begets confidence. When the ordinary prisoners are well treated and trusted, they comparatively seldom go away. As a matter of discipline, however, the whole system must be reformed as the Inspector-General proposes.

63. With reference to paragraphs 232 to 241, recapitulating the history of the question of police or warder guards, it may be remarked that the present Lieutenant-Governor had no part in the decisions alluded to, and the order upholding the present system was passed before he took charge. The whole subject cannot be disposed of in an annual report; it is a special one, which should be separately reported for orders. Without at all pledging himself, Mr. Campbell may say that he is inclined to make some concessions in the shape of special establishments for lock-ups and the internal guarding of jails. The complete control of the Magistrate over the police should diminish the inter-departmental clashing formerly complained of.

64. As regards sentries on the wall, that also is a special subject. The Lieutenant-Governor is not yet prepared to bring them down till there are efficient substitutes inside. A sentry outside the wall is of no use whatever unless the prisoner jumps down into his arms, as in one case reported.

65. With reference to Mr. Heeley's apology for Bengal jails, the Lieutenant-Governor admits that men and women are in fact not often herded together. The license of Bengal "Liberty Halls" does not go quite so far as that. But it seems clear that in a very large proportion of the Bengal jails the under-trial prisoners were not kept separate (in the day at any rate) till His Honor drew attention to the matter, and if that most primary step was not taken, he hardly went too far in what he then said of the system. He is glad to acknowledge that Mr. Heeley has done all he could in the manner described to remedy the evil, and no doubt, under detailed orders which have been issued, it will soon cease to exist, so far as under-trial prisoners are concerned. For the rest the Lieutenant-Governor is well aware that in almost all jails the prisoners are separated in different wards at night. The nature of the jail wards makes that necessary. He believes that in some jails some attempt is made at classifying them in these night wards, but the Lieutenant-Governor has hardly enquired into that; for, in truth, if the whole mass associate together in their meals and relaxations morning and evening, and work in the same yards and workshops all day, it matters little how they are separated when they are locked up for sleep at night.

66. As regards paragraphs 258-260, Mr. Heeley already understands from personal explanation that he has misunderstood the Lieutenant-Governor's intentions regarding the isolation of the under-trial prisoners. It was never ordered, and His Honor never thought of ordering, nor in any way intended, that under-trial prisoners should be subjected to solitary confinement. The Lieutenant-Governor may further say that he does not wish to have "cells" made for confessing prisoners only. What he does say is that, on the same principle on which he prohibits the mixing up of under-trial prisoners with

convicted prisoners, he would not allow all under-trial prisoners in every case and every grade of offence to be mixed up together, if it can be helped. Especially he desires that newly-arrived prisoners should not be turned loose among criminals of all classes before they have been examined by the Magistrate. The law, justly and properly as Mr. Campbell thinks, and at any rate in accordance with the laws of most other countries, permits, encourages, and enjoins the examination of accused persons to the fullest extent, and it would be defeating the whole object of the law if newly-arrived prisoners were permitted to associate with practised villains before going before the Magistrate.

For several reasons, then, under-trial lock-ups and wards must be sub-divided into several compartments, in which under-trial prisoners may be classed with reference to the nature of the cases on which they are brought up, to the stage of trial in which they are, and to the exigencies of particular cases.

The Lieutenant-Governor quite agrees that it is most convenient that under-trial lock-ups should be placed near the Magistrate's court as in the North-Western Provinces; and it has already been arranged with the Inspector-General to build these wherever the ordinary jail is not close at hand, or does not provide the necessary accommodation.

67. Paragraph 262, regarding the comparative length of time that prisoners are under trial, will be considered in the Judicial Department, together with the first part of paragraph 263.

68. The Lieutenant-Governor agrees in Mr. Heeley's view that improved accommodation for civil prisoners must be postponed to more pressing necessities. It is to be observed that the number of these prisoners has much diminished of late years.

69. The Inspector-General's views here exhibited regarding non-laboring convicts are correct. They are better classed with convicts than with under-trial prisoners, and the bad characters imprisoned in default of security are perhaps the worst class in the jails.

70. The Lieutenant-Governor feels much indebted to Mr. Heeley

Classification of laboring convicts

for his carefully thought-out scheme, and considers his proposals very judicious and well-timed. He is authorised to carry them out as far as he can. He will no doubt consider them experimental, and report presently on their working, and on the modifications which practice may suggest. He has treated the subject so clearly and exhaustively that the Lieutenant-Governor has little more to say about it. But His Honor thinks that the suggestion that every prisoner should come to jail with a character is a most excellent one, and points to a most important change in our whole system of jail management. Mr. Campbell has several times thought of something of the kind, and gladly accepts Mr. Heeley's practical proposal. The Lieutenant-Governor utterly repudiates and repels the doctrine sometimes set up, that the jail officer has nothing to do with previous character, and is only to look to good or bad conduct in jail. There is far too great proneness to that view in jail management. In reality, as the Lieutenant-Governor has more than once pointed out, the greatest villains, the leaders of gangs of forgers or dacoits, or any other form of crime, are frequently or generally the cleverest prisoners; they most readily understand their position, and often behave the best, tell the most plausible stories of their

virtuous career and unjust condemnation, and make themselves most generally useful. The jail officers, who are either taken in by such men, or who simply utilize them on the principle of looking to jail conduct alone, have the excuse that they generally have little means of learning a man's history and antecedents. In accordance with Mr Heeley's suggestion, Magistrates will be desired in all cases to attach to a prisoner's warrant when he is sent to jail, a short description showing as far as possible the general character and history or occupation of the man, and the circumstances under which he is imprisoned. These descriptions should be, as above directed, short; but the jail officer should be encouraged to ask for, and should obtain further details when required.

It should be a most particular rule that in all cases of transfer, both this note of previous character and a certificate of jail character to date should be sent with the prisoners.

71. The Lieutenant-Governor will only further say that when this is done, great care will still be necessary to see that jail officers pay attention to previous character. If strict rules lead to evil in one way, on the other hand the discretion now proposed to be given in regard to classification might open the door to much undue favour if jail officers looked to jail convenience and jail conduct only.

72. The want of arrangements for this class would be intolerable, if it were not happily the case that comparatively few boys come into our Indian jails. The examples given from the Presidency Jail in the Inspector-General's 76th paragraph show however that, as civilization proceeds the class of boy-criminals of a habitual type is growing up. If there is a sufficient supply of such cases, and Mr. Heeley thinks it desirable to come forward with a plan for a regular juvenile reformatory, to which habitual boy-criminals from all parts of the country may be sent, the Lieutenant-Governor will be glad to consider it. Meantime, there are to be juvenile wards in our central jails, and the Lieutenant-Governor will be glad if the Inspector-General can suggest arrangements of the same kind for groups of jails not in easy communication with a central jail.

Where there are only two or three boys, they might be put together in a cell or separate compartment, be locked up, and worked there during the term of a short sentence.

73. As regards the relative pay of jailors and naibs, the Lieutenant-Governor had rather the jailor should have a little less and the naib a little more, so that a really good naib might have the prospect of succeeding to be a jailor, than have so wide an interval between their salaries as is here described. Hitherto, with large salaries and *all* the commission, the emoluments of the jailors have been disproportionate to those of the rest of the establishment. A well graduated establishment is much more efficient than a disjointed one. We shall get better jailors if fair promotion is given to men who have served well in the lower grades. The turnkeys, too, should have a place in the gradation, and it should be possible for them to rise. The Lieutenant-Governor heartily concurs in what is said of them in paragraphs 283-85. But two grades of turnkeys and two of head turnkeys will probably be

Juveniles.

Internal discipline; establishments.

enough. The Lieutenant-Governor is ready to sanction a scheme for giving Rs. 7 and Rs. 9 to the former, and Rs. 12 and Rs. 15 to the latter, as fit men are selected or found.

74. The first part of this paragraph, regarding the benefit derived from having a European warder, somewhat conflicts with what the Inspector-General has before said about European candidates for employ, and with the last part of the paragraph. Europeans have certainly some qualities very desirable in jails, and if the class of men obtained were always or generally virtuous and sober (as seems to be sometimes assumed), they would be well worth the expense. But it is very well known that if in this country we pick up and employ under-paid Europeans, they are generally very far from possessing those qualities, as the experience quoted in the report clearly shows. Except for European prisoners, the Lieutenant-Governor has therefore generally declined to sanction European warders; and he adheres to the resolution that for native jails, unless the charge is so important as to justify not only a European jailor, but also a European deputy under him on some such salary as Rs. 120 or 150, he will not have Europeans under the jailor.

75. The Inspector-General's remarks regarding convict overseers are extremely judicious, and the Lieutenant-Governor trusts he will succeed in putting a stop to the breaches of rule and abuses which have prevailed.

76. Where a jail writer is really necessary, regular sanction for one should be applied for.

77. The Lieutenant-Governor looks on the revision, consolidation, and abbreviation of jail forms and returns as a work of the very first importance, and he trusts that Mr. Heeley will succeed in carrying it out thoroughly and well. It has always seemed to His Honor that diffuseness of forms is more frequently due to want of care and skill in compressing them, than to the demand for an excessive amount of information. It is much easier to draw out a dozen forms giving little information than one form giving a great deal of information in small compass. With adequate skill what is really wanted may be put into very moderate compass. As regards the social and other statistics which it has been sought to obtain from our jails, the Lieutenant-Governor is unwilling to give up so much of them as is really useful and can be intelligently given, in order to effect a very small saving. The "rigid financial pressure" is not now so severe as to necessitate our giving up anything really wanted. All or most that Dr. Mouat proposed may still be given, if it is borne in mind that for purposes of social statistics we only take a certain number of prisoners as a specimen of the population, and that it is enough if we take the main body who are easily included in such returns. It is not indispensable to have accurate social statistics for every prisoner as it is to have accounts of all expenditure. This may be illustrated by a question which lately occurred. There was great difficulty about getting full social statistics from rural lock-ups. The Lieutenant-Governor ordered that lock-ups should be wholly omitted, thinking that such statistics for 18,000 prisoners would be quite as valuable as those for 18,500. So, as Mr. Heeley suggests, certain facts ascertained regarding the prisoners in jail at the end of each month are just as valuable as if

taken regularly for every prisoner each day. For many purposes such information taken once a year would suffice.

By compressing returns, then, and confining ourselves judiciously to the main facts, we may both retain the statistics and avoid undue expenditure.

78. Mr. Heeley's remarks about jail accounts are of very great importance. Here there must be no returns in the rough, no sacrifice of exactness; we must insist upon rigidly accurate and precise accounts as the very first condition of jail administration. The Lieutenant-Governor trusts with confidence to Mr. Heeley's efforts to secure this result.

79. The general conduct of the prisoners in the jails seems to have been fairly good in the year under review, and offences and punishments not more than might be expected. The Lieutenant-Governor quite agrees in what the Inspector-General says in paragraph 299, that it is much better that serious offences should be tried judicially by a Magistrate. He also agrees in most of the remarks in paragraph 302 regarding luxuries. The practice under which the use of tobacco was at one time almost winked at was very injurious.

80. The only part of this chapter in which His Honor cannot fully agree, is Mr. Heeley's strong recommendation as to the very free use of corporal punishment. If we were dealing with brutal and refractory men flogging would be most effective; but most of our prisoners do not present this character. The prisoners are sent to jail for offences of various degrees of turpitude, and a flogging for a breach of jail discipline may be a fearful degradation, and a punishment altogether disproportioned to the original offence. When the law so carefully restricts the use of stripes judicially to certain specified offences, it seems to Mr. Campbell dangerous to suggest to officers in charge of jails, who are generally quite without judicial experience, the very free use of that punishment for petty jail offences. Such a power is most unequally used, as the figures of the report show; some men will scarcely be driven to use it at all; others, having once taken to it, may use it without sufficient discrimination. The class of offenders in the Presidency jail is probably much more habitual and more fitted for the lash than those in country jails, but still the number of flogging seems very large. And the Lieutenant-Governor can imagine no reason why the lash should be so much more frequently used at Patna, Bhagalpore, Beerbhoom, and Sylhet, than at Moorshedabad, Burdwan, Nuddea, and Tipperah. The excessive frequency of this punishment in the small jail of Beerbhoom, not containing a very desperate class of criminals, seems to call for special enquiry. The Lieutenant-Governor highly approves of Mr. Heeley's proposal to draw out some rules showing in what cases corporal punishment may be given, and thinks that, as regards all district jails at any rate, the Magistrate of the district should be called on to exercise a strict supervision over jail punishments, and should be responsible for the general discretion with which such punishments are inflicted. Probably some distinction might be made between men never hitherto flogged and hardened offenders for whom that punishment has become a necessary instrument of discipline.

It is to be hoped that when there are better means of solitary confinement, that punishment combined with low diet and hard work

may prove an effectual instrument for keeping order. Shaving of the head may be a good punishment in some cases.

81. The Lieutenant-Governor feels strongly, as it is now, he believes, generally felt in England, that remissions of sentence and tickets-of-

Rewards.

leave must not be given too freely on mere jail grounds, otherwise judicial objects are apt to be defeated. It does not do that a Judge should sentence for seven years, thinking that his sentence means seven years, when really the executive jail authorities reduce it to four. It seems a better system which is, Mr. Campbell thinks, now adopted in England, that the Judge should sentence to so many years' imprisonment certain, and that there should be a further term on ticket-of-leave and under surveillance to which the prisoner should be entitled, but commutable to imprisonment if he misconducts himself. The Lieutenant-Governor has therefore reduced remissions within very narrow limits, as shown by the Inspector-General.

82. The intermediate imprisonment to which a stop has been put, was not really anything to which that term is ordinarily applied. The Lieutenant-Governor's own view is that, whether out by day and in by night, or *vice versa*, a system under which prisoners are constantly passing in and out of jail leads to much abuse, and should not be permitted.

83. With reference to the Lahore system of intermediate punishment, the Lieutenant-Governor observes that the first stage is practically the same as our prison warder stage. The second stage has admittedly failed. The whole thing resolves itself therefore into the third stage, that is ticket-of-leave under surveillance. The Lieutenant-Governor thinks it an excellent plan that such prisoners should be bound to work under the Department of Public Works or other public department. At Lahore Mr. Campbell understands that at one time, under a system vigorous somewhat beyond the law, all bad characters and released prisoners were put on the roads as Public Works Department coolies, and the effect is said to have been very good. The Lieutenant-Governor will be glad at any time to have proposals for any system of conditional release in accordance with the law, or to which we might obtain sanction of law, provided it be consistent with the principles with which he commenced his remarks on this subject.

84. Mr. Heeley will, the Lieutenant-Governor hopes, introduce the mark system as proposed by him.

85. As regards gratuities, His Honor quite agrees in what is said, so far as he can at present see. The rules to which allusion is made were passed in routine course as sent up by the jail department, and the Lieutenant-Governor is quite ready to alter them for sufficient reasons.

86. This subject has given occasion to much correspondence and many directions. It is in a transition

Employment.

state, and it is impossible to carry out a very complete and satisfactory system till buildings and instruments are provided. General considerations on the subject have been already dealt with. It is therefore not needful to go into detail here, but only to make a few observations. The Lieutenant-Governor is fully satisfied that Mr. Heeley has done all that he

can to carry out that object which was pointed out to him as most necessary, viz., the provision of a certain amount of penal labor for short-term and other prisoners. The details given show as much as could be expected under the circumstances. At the same time the Lieutenant-Governor feels that it is very difficult, without scientific instruments, to ensure really penal and uniformly penal labor at oil-presses, brick-pounders, &c. For instance, at Berhampore, Dr. Coates is stated, with much trouble and frequent whippings, to have at last got a full measure of brick-dust; but when Mr. Campbell was there, he found that the prisoners were industriously pounding bricks which were nothing but unburnt mud. He would be glad to see tread-mills in some of the jails; and still more glad to have some cranks for single prisoners in many jails and lock-ups. He thinks little of the value of a few prisoners' labor compared to a good *measure* of punishment, and would much like the Inspector-General to get some such instruments for single prisoners by which penal labor can really be exactly measured, especially since such labor may be combined with solitary confinement, to which, so used, the Lieutenant-Governor looks a good deal for relief from the short-term difficulty. Cranks might be particularly useful in lock-ups. As regards ordinary intramural labor, the Lieutenant-Governor will only say he thinks jute manufacture both the most profitable and the best manufacture we can have. It is heavier and coarser work than most weaving. The cultivation of jute is extending to many districts, and the Inspector-General should extend this industry as much as possible. Complaint is made in some jails that they cannot sell their jute articles. It might be well to have a central dépôt for such things in Calcutta, where the demand is almost without limit.

87. As regards classes of labor, the Lieutenant-Governor is inclined to prefer Mr. Heeley's original classification to any subsequent modification suggested, and does not think too much discretion should be given to jail officers, whose views and habits of mind vary so greatly. While we must not too much relax judicial sentences, we must also not too much modify them in any other way. If a Judge sentence a thief and a rioter to the same rigorous imprisonment, he has probably meted out to each what he considers right according to the same measure, and we can hardly say one imprisonment should be really rigorous, and the other not. It is enough if we say the offence of one prisoner involves turpitude of character, which will be a bar to places of trust, and the other may fairly earn promotion after doing his share of hard work.

88. The Lieutenant-Governor also prefers Mr. Heeley's original views regarding garden labor to those developed in him by jail officers. Garden labor may be sometimes (though rarely) hard in some degree, but there is no denying that garden work is generally a pleasant labor which suits prisoner's tastes. Ordinary prisoners in the hard-working stage should not have their turn of the garden; that may degenerate into a periodical communication with the outside world. The garden should be reserved as an indulgent labor, and for convalescents. The whole number to be so employed, whether in the jail garden, Superintendent's garden, or any such work outside.

should be limited to a certain proportion, an exception being allowed after there has been much illness.

89. The Lieutenant-Governor is sorry that the convict gang at Dehree did not do more real work for the Irrigation Department. There is, however, reason to believe that they have done much more in the present year, and have been of great use. Such employment in public works has its advantages and disadvantages. But, on the whole, seeing the difficulty we have in usefully employing our prisoners, His Honor is not prepared to object to the system when it can be carried out under favourable circumstances, and especially when the prisoners are far from their homes, which is, he thinks, a great advantage.

90. As regards out-door work generally, most of the Lieutenant-Governor's personal experience has been in days when prisoners worked on the roads, and he has said that they did much useful work; but then they were put in large gangs on considerable works, where the work done could be watched and measured. He entirely agrees with Mr. Heeley in denouncing as most injurious the employment of prisoners, after the fashion mentioned, in such work as cleaning bazars, weeding and mending roads, and all sorts of little odd jobs. Such works cannot be measured, nor can the prisoners be properly supervised. It is far worse than the old mode of working in large gangs, and should be strictly forbidden. The only possible case where such work might be allowed under judicious restriction would be as an indulgence for the same class of prisoners who are employed in the garden.

At Jessore and Mymensingh such a system is quite unnecessary. The Inspector-General must also examine and reform the practice in Assam, as already directed.

91. The remarks regarding the employment of prisoners on odd jobs apply still more forcibly to lock-ups. The Lieutenant-Governor strongly suspects that in some cases prisoners are kept at sub-divisional lock-ups on purpose to use them in this way. At any rate, the practice of keeping them for considerable terms at lock-ups should be put a stop to. It seems quite unnecessary at Begoo Serai. Buxar is on the very line of rail, and prisoners might be sent to Arrah daily, if necessary. Mr. Heeley should look into this matter carefully.

92. The subject of these lock-ups has been several times mentioned in this resolution, and the Lieutenant-Governor will not pursue it further than to say, with reference to paragraph 362, that Government will insist on Magistrates carrying out zealously the important reforms in lock-up management required, and will hold sub-divisional officers strictly responsible for a hearty compliance with orders on this subject.

93. The Inspector-General's definite proposals as regards the establishments for lock-ups are awaited. They should certainly include at least one responsible man in charge *not* liable to be charged.

94. Most of the branches of expenditure and income have been indirectly or directly treated in remarks on the various departments of jail management, and the Lieutenant-Governor has not much more to say here. Upon the whole, whether taking the past year alone or relatively to its predecessors, he does not think that we can complain that our jail expenditure is excessive. It is, however, considerably in excess, nam

Jail finance.

for man, as compared to the North-Western Provinces; paragraph 409 showing the cost per head for Bengal to be Rs. 56-9 to Rs. 45-10 in the North-Western Provinces; and it is not quite clear why rations in Bengal should cost Rs. 26 to Rs. 19-8 in the North-Western Provinces. But in the present state of our buildings, some additional expense for guards, &c., must necessarily be incurred. And the Lieutenant-Governor quite feels that if by attention to details, which he is sure will be given, by the reduction of expensive jails, and pruning of unnecessary items, something is saved, a good deal of expense will be involved *per contra* to render our establishments efficient and our system satisfactory. He therefore cannot look to much saving, and will be content if we attain more efficiently the objects for which jails are designed, without very material addition to the net cost of our jails.

95. The Lieutenant-Governor agrees that the Alipore Press work should not include book-work, and consents to the Inspector-General's printing his report in future, as he proposes, at the Secretariat Press.

ORDERED, that a copy of this Resolution be forwarded to the Inspector-General of jails for his information and guidance.

Statement showing the mortality rates of each Jail for each of the past 15 years.

JAILS AND YEARS.				Daily average number of prisoners.	Total number of deaths	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
				<i>Burdwan.</i>			<i>Bankoora.</i>		
1857	...	...	...	523	(5)	96	369	(2)	25
1858	...	...	...	585	13	69	476	28	5.88
1859	...	...	...	654	26	110	483	3	6.00
1860	...	...	...	596	3	64	321	11	9.65
1861	...	...	...	594	4	40	321	2	8.72
1862	...	...	...	602	5	35	382	27	4.19
1863	...	...	...	469	27	5.75	428	16	3.73
1864	...	...	...	438	6	27	409	16	6.84
1865	...	...	...	505	17	3.36	497	8	1.4
1866	...	...	...	628	7	53	630	4	49
1867	...	...	...	454	18	4.11	577	2	1.67
1868	...	...	...	357	8	2.24	522	7	1.14
1869	...	...	...	311	6	1.92	422	3	.71
1870	...	...	...	224	13	5.80	369		
1871	...	...	...	213	14	6.57	287	4	1.39
Total	...	...	...	7,133	(69)	528	6,493	(59)	300
				<i>Bierbhoom. *</i>			<i>Mudnapore.</i>		
1857	...	...	...	359	(3)	36	708	(72)	133
1858	...	...	...	438	19	4.34	854	46	1.67
1859	...	...	...	413	26	6.29	773	43	5.56
1860	...	...	...	365	1	21	656	91	24.84
1861	...	...	...	274	17	31	530	5	3.7
1862	...	...	...	260	9	3.46	466	9	1.91
1863	...	...	...	271	1	14	592	14	2.56
1864	...	...	...	284	7	2.46	530	8	3.5
1865	...	...	...	244	7	2.86	635	7	42
1866	...	...	...	373	1	7	892	47	121
1867	...	...	...	370	11	2.97	563	2	13
1868	...	...	...	301	15	4.98	530	4	1.88
1869	...	...	...	218	9	5.09	654	4	18
1870	...	...	...	151	1	4	1,048	7	50
1871	...	...	...	198	5	2.52	980	22	2.24
Total	...	...	...	4,519	(24)	221	10,531	(291)	833
				<i>Hooghly.</i>			<i>Howrah.</i>		
1857	...	...	...	720	(14)	158	26	(1)	2
1858	...	...	...	882	34	132	53	7	7.69
1859	...	...	...	922	16	106	69	8	13.20
1860	...	...	...	815	84	162	82	11	11.59
1861	...	...	...	758	14	106	1399	31	13.44
1862	...	...	...	743	19	79	1063	31	30.63
1863	...	...	...	639	28	93	1455	16	12.30
1864	...	...	...	593	7	40	793	1	17
1865	...	...	...	626	6	28	447	1	14.65
1866	...	...	...	713	19	63	883	6	4.72
1867	...	...	...	654	5	29	443	1	8.55
1868	...	...	...	591	2	23	389	1	6.84
1869	...	...	...	527	4	22	417	1	10.07
1870	...	...	...	565	19	39	693	3	7.496
1871	...	...	...	511	8	40	782	5	2.26
Total	...	...	...	19,173	(279)	1,120	11,011	(12)	4.85

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.			Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.		
			<i>Presidency, Europeans.</i>			<i>Presidency, Natives.</i>				
1857			103	(1)	4	3.88	497	(3)	12	8.45
1858			84		7	8.33	474	12	59	12.44
1859			108	1	1	.92	489	1	20	4.09
1860			125	1	1	.80	458	1	17	3.71
1861			144				421	4	29	6.88
1862			97	3	4	4.12	465	1	24	5.16
1863			118				615		27	4.39
1864			162	3	4	2.46	487		20	4.10
1865			171	1	2	1.16	546	2	30	5.81
1866			101	3	5	4.95	682	9	32	4.69
1867			85		5	5.88	944		29	3.10
1868			89	2	7	7.86	582	1	25	2.74
1869			105	3	3	2.91	848	1	15	1.77
1870			90		2	2.22	794	1	8	1.01
1871			92		2	2.17	769		7	.91
Total			1,662	(23)	47	2.82	9,431	(36)	384	4.07
			<i>Alipore.</i>			<i>Russa Female Prison</i>				
1857			1,836	(34)	203	11.05	Nodata available prior to 1867			
1858			2,011	60	440	21.88				
1859			1,856	30	304	16.37				
1860			1,908	41	325	17.03				
1861			1,781	7	157	8.81				
1862			1,872	13	130	6.94				
1863			1,889	13	130	6.88				
1864			1,897	19	116	6.11				
1865			1,847	26	141	7.08				
1866			1,972	24	141	7.15				
1867			2,464	20	149	6.04				
1868			2,258	12	184	8.22	252	(1)	18	7.14
1869			2,128	32	155	6.95	224		11	4.95
1870			2,230	14	115	5.15	279		10	3.58
1871			2,005	10	160	5.44	279	3	16	6.69
Total			30,034	(355)	2,789	9.28	993	(4)	55	5.54
			<i>Barasat</i>			<i>Nuddea.</i>				
1857			182	(1)	18	9.85	479		14	3.25
1858			222		9	4.05	574		15	2.81
1859			265		3	1.14	374		6	1.60
1860			264		25	9.47	388	(1)	10	2.57
1861			186	1	16	8.60	333		12	3.05
1862			136		4	2.94	548	5	37	6.75
1863			156	1	14	8.97	503		35	9.95
1864			139		9	6.47	462		15	3.73
1865			101	3	8	7.92	363		10	2.75
1866			178		10	5.61	377		10	2.65
1867			165		4	2.42	412		8	1.94
1868			130		4	3.07	397		0	1.51
1869			205		29	10.24	446		8	1.82
1870			305		19	6.23	366		8	2.18
1871			283		22	7.77	306		2	.65
Total			2,917	(6)	185	6.34	6,209	(6)	196	3.15

The figures within brackets denote the number of deaths from cholera.

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Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.	Daily average number of prisoners.	Total number of deaths	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
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The figures within brackets denote the number of deaths from cholera

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Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.		Daily average number of prisoners.	Total number of deaths	Death rates.	Daily average number of pris-ners.	Total number of deaths	Death-rates	
		Backergunge.			Mymensingh.			
1857	462	5	34	5.89	206	10	86	41.75
1858	445	10	31	5.69	617		48	9.28
1859	517	9	50	5.70	565		23	5.54
1860	481	18	61	12.68	506	2	23	4.55
1861	419	12	64	10.39	480	19	67	13.70
1862	301	8	30	6.76	393	28	72	18.18
1863	467	8	83	15.36	455		30	6.59
1864	617	52	148	13.15	584	11	55	9.41
1865	525	18	47	17.62	515		35	6.79
1866	427	1	18	2.67	452	2	30	6.63
1867	426	5	39	4.51	431		18	4.17
1868	447	5	40	5.27	430		18	4.18
1869	523	19	52	4.06	421		16	3.80
1870	331	3	33	9.67	610		23	3.77
1871	380	3	30	7.89	442		12	2.71
Total	6,798	(176)	810	11.91	6,959	(72)	561	3.96
		Sylhet.			Cachar.			
1857	554	2	22	3.97	36		1	2.73
1858	422	2	16	3.79	77		2	2.59
1859	386	1	26	6.73	78	6	6	7.69
1860	392		19	4.84	94		5	5.31
1861	356		10	2.81	127		2	1.57
1862	435	25	67	15.40	161	7	16	9.93
1863	401	7	23	5.73	189	5	23	12.16
1864	859		7	1.94	210	7	21	10.10
1865	402	3	28	6.96	225	6	53	23.55
1866	392	4	50	7.65	216	6	15	6.94
1867	362		14	3.86	212	16	29	13.67
1868	366		16	4.37	180	2	9	5.00
1869	395	4	15	3.87	124		2	1.61
1870	392	1	4	1.02	122		2	1.64
1871	396		12	3.03	119		2	1.68
Total	6,003	(49)	309	5.14	2,170	(55)	188	8.62
		Chittagong.			Noakhully.			
1857	192	(1)	5	2.60	241		6	2.49
1858	184		10	5.43	277		9	3.25
1859	219		28	11.26	319		8	2.59
1860	402	1	30	7.44	295	(2)	4	1.55
1861	388		24	6.18	213		6	2.81
1862	383		15	3.88	257		6	2.33
1863	319	4	13	3.72	263		5	1.90
1864	330		7	1.81	231	2	8	3.46
1865	305		6	1.96	179		2	1.67
1866	254	1	9	3.54	198		2	1.02
1867	280		9	3.91	198		6	3.03
1868	229	4	11	4.80	255	1	5	1.95
1869	236	2	9	3.81	210		4	1.61
1870	217		5	2.30	212		4	1.88
1871	230		8	3.17	179		1	.56
Total	4,181	(13)	189	4.52	3,572	(5)	77	2.15

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
<i>Tipperah.</i>						
1857	461	21	4.55	929	(16)	15.1
1858	521	17	3.26	922	1	7.1
1859	445	13	2.72	751	24	6.8
1860	380	22	5.78	600	33	5.7
1861	370	27	7.12	539	29	5.6
1862	405	(1)	2.1	569	3	2.1
1863	463	1	8	538	21	5.0
1864	498	1	10	473	9	3.4
1865	384	6	1.56	472	14	2.6
1866	366	6	1.63	653	19	6.5
1867	345	1	8	585	25	5.6
1868	324	1	4	497	6	2.1
1869	323	1	6	439	15	4.4
1870	317	8	2.52	447	8	2.9
1871	284	3	1.05	453	1	1.6
Total	5,898	(7)	182	8,915	(258)	757
<i>Meerapore.</i>						
1857	254	(6)	7.3	28.74		
1858	579	6	1.21	29.20		
1859	519	1	92	16.75		
1860	513	36	117	22.80		
1861	374	4	5.2	18.90		
1862	418	1	18	10.71		
1863	466	8	41	8.79		
1864	336	1	11	3.27		
1865	521	19	3.64			
1866	681	12	71	10.42		
1867	395	14	3.54			
1868	398	17	4.27			
1869	489	3	70	14.32		
1870	469	1	19	4.64		
1871	397	14	3.52			
Total	6,829	(73)	779	11.40		
<i>Dhree.</i>						
1857	No data			Gya.		
1858				254	(6)	7.3
1859				579	6	1.21
1860				519	1	92
1861				513	36	117
1862	213	(13)	28	374	4	5.2
1863	149	5	3.35	418	1	18
1864	91	5	5.19	466	8	41
1865	78	5	6.11	336	1	11
1866	437	15	40	521	19	3.64
1867	604	28	76	681	12	71
1868	696	26	111	395	14	3.54
1869	628	4	35	398	17	4.27
1870	776	33	4.25	489	3	70
1871	543	16	33	469	1	19
	460	10	2.17	397	14	3.52
Total	4,675	(102)	381	8.14		
<i>Shahabad.</i>						
1857	285	26	9.12	493	(6)	5.1
1858	182	16	8.79	429	22	5.12
1859	288	56	19.41	400	5	3.7
1860	375	110	29.33	408	19	5.8
1861	472	51	13.77	398	10	2.7
1862	487	2	35	407	30	7.37
1863	519	12	60	438	16	8.1
1864	524	3	32	446	1	2.4
1865	470	17	3.61	434	1	41
1866	552	35	63	474	17	40
1867	411	3	17	324	6	2.1
1868	378	6	10	330	1	30
1869	398	10	9.51	300	5	22
1870	331	9	2.71	345	20	5.79
1871	343	4	1.16	498	61	12.25
Total	6,015	(117)	481	7.99	(87)	565
<i>Tirhoot.</i>						
1857	285	26	9.12	493	(6)	5.1
1858	182	16	8.79	429	22	5.12
1859	288	56	19.41	400	5	3.7
1860	375	110	29.33	408	19	5.8
1861	472	51	13.77	398	10	2.7
1862	487	2	35	407	30	7.37
1863	519	12	60	438	16	8.1
1864	524	3	32	446	1	2.4
1865	470	17	3.61	434	1	41
1866	552	35	63	474	17	40
1867	411	3	17	324	6	2.1
1868	378	6	10	330	1	30
1869	398	10	9.51	300	5	22
1870	331	9	2.71	345	20	5.79
1871	343	4	1.16	498	61	12.25
Total	6,015	(117)	481	7.99	(87)	565

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
<i>Sarun.</i>						
1857	485	(16)	59	1216	293	35
1858	374	11	36	942	286	18
1859	335	26	50	1591	233	1
1860	397	8	71	1788	180	16
1861	311	13	57	1691	181	13
1862	390	22	645	195	3	158
1863	458	1	72	1804	262	15
1864	496	22	31	676	210	3
1865	523	19	71	1431	218	14
1866	353	1	65	1051	313	49
1867	283	1	20	566	212	1
1868	269	18	15	530	262	13
1869	293	1	25	939	261	15
1870	288	1	3	307	196	7
1871			5	173	219	20
Total	5,629	(136)	598	10 62	3,581	50
<i>Chumpran.</i>						
1857	626	(5)	89	1421	424	29
1858	718	11	140	1871	618	39
1859	456	11	68	1491	487	39
1860	401	19	68	1695	299	30
1861	289	8	46	1602	266	14
1862	269	14	49	1821	352	11
1863	379	39	171	45 11	398	10
1864	367	6	16	435	362	10
1865	393	6	21	534	312	1
1866	483	6	38	786	315	16
1867	414	8	25	603	328	5
1868	367	14	299	310	310	1
1869	357	1	7	392	300	5
1870	320	1	7	218	405	1
1871	278	1	8	287	550	2
Total	6,145	(116)	771	12 54	5,786	213
<i>Monghyr.</i>						
1857	626	(5)	89	1421	424	29
1858	718	11	140	1871	618	39
1859	456	11	68	1491	487	39
1860	401	19	68	1695	299	30
1861	289	8	46	1602	266	14
1862	269	14	49	1821	352	11
1863	379	39	171	45 11	398	10
1864	367	6	16	435	362	10
1865	393	6	21	534	312	1
1866	483	6	38	786	315	16
1867	414	8	25	603	328	5
1868	367	14	299	310	310	1
1869	357	1	7	392	300	5
1870	320	1	7	218	405	1
1871	278	1	8	287	550	2
Total	6,145	(116)	771	12 54	5,786	213
<i>Paruah.</i>						
1857	473	(1)	34	823		
1858	386	1	49	1269		
1859	329	55	111	33 73		
1860	330	24	59	17 87		
1861	323		28	8 66		
1862	458		43	9 38		
1863	536	81	116	21 64	208	14
1864	550	1	48	872	169	14
1865	440	23	59	13 40	123	4
1866	357	1	19	5 32	112	6
1867	319	43	66	18 01	100	2
1868	324		25	7 71	101	4
1869	312		8	2 56	94	3
1870	308	1	13	4 22	155	11
1871	268		10	3 73	129	3
Total	5,683	(231)	688	12 16	1,191	45
<i>Rajmehal.</i>						
No data available prior to 1863.						
1863						
1864						
1865						
1866						
1867						
1868						
1869						
1870						
1871						
Total						

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.	Pakour.			Nya Doonka.		
	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
1857	No data available prior to 1863.			No data available prior to 1863.		
1858						
1859						
1860						
1861						
1862	46	4	4.70	82	5	6.09
1863	29	1	8.33	91	3	6.52
1864	12	1	8.33	21	1	5.00
1865	16	1	6.25	46	1	5.00
1866	6	1	16.67	20	1	5.00
1867	9	1	11.11	20	1	5.00
1868	4	1	25.00	40	1	2.50
1869	8	1	12.50	40	1	2.50
1870	7	1	14.29	26	1	3.85
1871	7	1	14.29	26	1	3.85
Total	136	5	3.67	386	12	3.11
Deoghur.						
1857	No data available prior to 1863.			No data available prior to 1863.		
1858						
1859						
1860						
1861						
1862	104	14	13.46	49	1	2.02
1863	101	1	.99	45	1	2.22
1864	37	3	8.10	30	2	6.66
1865	42	6	14.29	26	1	3.85
1866	41	1	2.44	27	1	3.70
1867	45	1	2.22	23	1	4.35
1868	60	1	1.67	15	1	6.67
1869	43	1	2.32	14	1	7.14
1870	36	1	2.77	19	1	5.26
1871	36	1	2.77	19	1	5.26
Total	509	26	5.11	248	14	5.65
Cutlack.						
1857	306	33	10.78	92	12	13.04
1858	338	63	18.64	108	5	4.63
1859	288	25	8.68	109	5	4.58
1860	279	18	6.45	109	3	2.75
1861	210	22	10.48	21	1	4.76
1862	304	27	8.88	19	1	5.26
1863	364	26	7.14	25	1	4.00
1864	372	27	7.25	27	1	3.70
1865	417	16	3.83	81	6	7.40
1866	975	304	31.18	436	19	4.36
1867	690	66	9.57	174	10	5.75
1868	416	11	2.64	95	2	2.10
1869	325	12	3.69	131	15	11.45
1870	254	30	11.81	105	4	3.81
1871	253	2	.79	96	2	2.08
Total	5,791	682	10.65	1,578	176	11.15
Pooree.						
1857	306	33	10.78	92	12	13.04
1858	338	63	18.64	108	5	4.63
1859	288	25	8.68	109	5	4.58
1860	279	18	6.45	109	3	2.75
1861	210	22	10.48	21	1	4.76
1862	304	27	8.88	19	1	5.26
1863	364	26	7.14	25	1	4.00
1864	372	27	7.25	27	1	3.70
1865	417	16	3.83	81	6	7.40
1866	975	304	31.18	436	19	4.36
1867	690	66	9.57	174	10	5.75
1868	416	11	2.64	95	2	2.10
1869	325	12	3.69	131	15	11.45
1870	254	30	11.81	105	4	3.81
1871	253	2	.79	96	2	2.08
Total	5,791	682	10.65	1,578	176	11.15

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.		Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.		
		Balasore.			Hazareebagh, European.				
1857	...	90	3	3.33	This prison came to existence on the 31st March 1865.				
1858	...	100	2	8.00					
1859	...	93	1	3.22					
1860	...	111	1	16.41					
1861	...	108	17	15.74					
1862	...	133	2	11.27					
1863	...	159	9	5.66					
1864	...	214	7	3.27					
1865	...	234	2	8.5	15	...	...
1866	...	579	42	125	28	...	1		
1867	...	206	1	3	38	...	3.58		
1868	...	144	4	2.77	37	...	...
1869	...	160	1	1.25	41	1	2		
1870	...	141	5	3.54	39	1	2.56		
1871	...	170	4	2.35	42	1	2.38		
Total	...	2,642	(50)	222	8.40	240	(1)	5	2.08
		Hazareebagh, District.			Hazareebagh, Central.				
1857	...	318	4	40	12.57	No separate records exist prior to 1867.			
1858	...	420	4	125	29.13				
1859	...	348	12	3.44					
1860	...	537	36	80	14.80				
1861	...	483	3	36	7.45				
1862	...	390	11	3.60					
1863	...	398	15	37	9.29				
1864	...	453	13	2.86					
1865	...	616	13	2.01					
1866	...	709	83	123	17.14				
1867	...	213	5	2.34	643	35	5.44		
1868	...	220	8	3.63	651	10	1.53		
1869	...	277	8	2.80	707	2	16		
1870	...	285	8	12	4.21	714	12	18	
1871	...	210	6	2.85	592	13	2.19		
Total	...	5,916	(153)	532	8.99	3,807	(14)	92	2.78
		Lohardugga.			Singbhoon.				
1857	...	62	14	22.58	125	1	13	10.10	
1858	...	204	3	67	115	14	12.17		
1859	...	314	5	49	155	3	22		
1860	...	333	34	91	137	28	20.43		
1861	...	225	12	37	161	8	21		
1862	...	208	13	6.25	160	4	2.50		
1863	...	259	13	5.02	187	7	3.74		
1864	...	288	8	2.77	214	10	4.67		
1865	...	306	10	22	7.18	141	3	2.12	
1866	...	253	1	14	5.53	228	84	171	
1867	...	218	6	2.75	155	11	7.09		
1868	...	246	2	12	4.87	120	5	4.16	
1869	...	311	4	8	2.57	103	4	3.88	
1870	...	238	9	17	7.14	83	1	3	
1871	...	169	4	2.36	82	
Total	...	3,724	(80)	375	10.07	2,168	(97)	318	14.58

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Continued).

JAILS AND YEARS.	Manbhoon.			Goalpara.		
	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
1857	238	(5) 16	6.72	116	(16) 22	18.9
1858	307	(1) 61	15.36	139	(8) 17	12.50
1859	395	(11) 30	7.59	113	(2) 17	15.04
1860	310	(12) 29	9.35	162	(45) 94	58.02
1861	271	(9) 30	11.07	154	(6) 26	16.88
1862	235	(1) 12	5.10	200	(5) 19	9.50
1863	188	(5) 4	2.12	172	(12) 13	7.55
1864	212	(5) 12	5.66	149	(12) 12	8.05
1865	198	(3) 3	1.51	138	(3) 12	8.69
1866	363	(13) 18	13.22	137	(3) 11	8.02
1867	246	(11) 4	4.47	132	(5) 6	4.57
1868	156	(7) 4	4.48	134	(6) 6	4.47
1869	189	(4) 2	2.12	88	(3) 10	11.38
1870	148	(3) 2	2.02	97	(1) 5	5.15
1871	141	(1) 5	3.54	117	(1) 6	5.12
Total ...	3,687	(58) 275	7.46	2,018	(92) 275	13.42
	Kamroop.			Durrang.		
	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
1857	172	(10) 20	11.62	144	(2) 5	3.47
1858	183	(1) 9	4.91	173	(2) 11	6.35
1859	162	(1) 12	7.40	166	(1) 11	6.62
1860	143	(22) 33	23.07	207	(8) 8	3.86
1861	162	(9) 9	5.55	215	(1) 15	6.97
1862	166	(5) 14	8.43	189	(1) 11	5.82
1863	168	(11) 31	18.45	185	(1) 10	5.40
1864	137	(2) 13	8.28	209	(8) 8	3.82
1865	156	(11) 43	27.56	212	(1) 5	2.35
1866	230	(2) 39	16.95	175	(7) 4	4.00
1867	205	(1) 39	19.03	183	(6) 3	3.27
1868	188	(8) 8	4.25	169	(3) 3	1.77
1869	196	(2) 25	12.75	182	(3) 9	4.95
1870	114	(2) 2	1.75	197	(6) 6	3.04
1871	101	(8) 18	17.82	171	(2) 2	1.17
Total ...	2,563	(75) 307	12.22	2,777	(10) 117	4.21
	Nowgong.			Sebsaungpor.		
	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.
1857	94	(6) 6	6.38	100	(4) 4	4.00
1858	83	(3) 3	3.61	111	(10) 10	9.00
1859	73	(5) 5	6.85	112	(7) 7	6.25
1860	58	(3) 5	8.65	104	(3) 7	6.72
1861	50	(3) 3	6.00	80	(3) 3	3.37
1862	69	(5) 5	7.24	111	(9) 9	8.10
1863	92	(5) 13	14.13	136	(4) 4	2.94
1864	91	(3) 3	3.29	130	(9) 9	6.92
1865	39	(1) 1	2.56	89	(9) 9	10.11
1866	66	(7) 7	8.09	119	(10) 10	8.40
1867	93	(7) 7	7.52	130	(11) 11	8.45
1868	80	(1) 1	1.25	160	(7) 7	7.00
1869	59	(4) 4	6.78	96	(3) 3	3.12
1870	72	(2) 2	2.77	120	(1) 5	4.16
1871	90	(5) 10	11.11	102	(1) 1	.98
Total ...	1,009	(22) 69	6.83	1,639	(4) 99	6.00

The figures within brackets denote the number of deaths from cholera.

Statement showing the mortality rates of each Jail for each of the past 15 years—(Concluded).

JAILS AND YEARS.	Daily average number of prisoners.	Total number of deaths.	Death-rates.	Daily average number of prisoners.	Total number of deaths.	Death-rates.	
<i>Luckhimpore.</i>							
1857	56	.....		27	5	18.51
1858	51	2	3.92	122	1	4.54	
1859	91	11	19.01	38	3	7.89	
1860	100	10	14.67	54	7	12.96	
1861	142	5	9.15	40	7	17.50	
1862	152	10	17.10	28	3	10.71	
1863	137	12	8.75	24	21	87.50	
1864	125	13	10.40	17	1	5.88	
1865	119	13	10.92	23	7	30.43	
1866	95	2	4.21	38	6	15.78	
1867	89	6	6.74	44	1	2.27	
1868	90	1	4.44	45	4	8.88	
1869	86	2	5.81	57	8	13.86	
1870	83	.....	.....	50	6	12.00
1871	68	1	1.47	38	...	...
Total ...	1,493	(31)	126	844	(15)	85	15.59
<i>Khasi Hills.</i>							
1857	56	.....		27	5	18.51
1858	51	2	3.92	122	1	4.54	
1859	91	11	19.01	38	3	7.89	
1860	100	10	14.67	54	7	12.96	
1861	142	5	9.15	40	7	17.50	
1862	152	10	17.10	28	3	10.71	
1863	137	12	8.75	24	21	87.50	
1864	125	13	10.40	17	1	5.88	
1865	119	13	10.92	23	7	30.43	
1866	95	2	4.21	38	6	15.78	
1867	89	6	6.74	44	1	2.27	
1868	90	1	4.44	45	4	8.88	
1869	86	2	5.81	57	8	13.86	
1870	83	.....	.....	50	6	12.00
1871	68	1	1.47	38	...	...
Total ...	1,493	(31)	126	844	(15)	85	15.59

The figures within brackets denote the number of deaths from cholera.

Jails arranged according to the average mortality rates of past 15 years.	Death rates.	Jails arranged according to the average mortality rates of past 15 years.	Death rates.	Jails arranged according to the average mortality rates of past 15 years.	Death rates.
Burdwan	7.42	Dacca	4.45	Deochur	5.11
Bankoora	4.62	Farcedpore	3.15	Godda	1.61
Beerbhoom	4.89	Backergunge	11.91	Cuttack	10.65
Mulgaipore	7.91	Mymensingh	8.06	Poorce	11.14
Hooghly	11.01	Sylhet	5.14	Balasore	8.49
Howrah	9.32	Cachar	8.02	Hazareebagh, European	2.08
Presidency, European	2.82	Chittagong	4.52	Hazareebagh, District	8.99
Presidency, Native	4.07	Noakhully	2.15	Hazareebagh, Central	2.78
Alipore	9.28	Tippurah	3.08	Lohardugga	10.07
Russia	5.54	Meerapore	8.49	Singhbhoom	11.38
Barnset	6.34	Delree	8.14	Mambhoom	7.46
Nuddea	3.15	Gya	11.10	Goalpara	13.12
Jessore	3.36	Shahabad	7.39	Kansarp	12.22
Moorebadaud	7.69	Tuhoot	9.13	Durrang	4.21
Dimgaipore	12.05	Sarun	10.62	Nowgong	6.83
Maldah	5.43	Chumparun	7.59	Seebanor	6.00
Rajshahye	8.73	Monghyr	12.74	Luckhimpore	8.14
Rungpore	13.10	Bhazulpore	11.39	Khasi Hills	15.59
Bogra	6.87	Purneah	12.16	Total	8.03
Pubna	5.69	Rajmchal	6.71		
Darjeeling	7.98	Pakour	3.67		
Julpigoree	11.25	Nya Doomka	3.11		

RESOLUTION ON THE WORKING OF THE
JAILS OF BENGAL FOR 1872.

Resolution on the working of the Jails of Bengal for 1872.

Calcutta, the 5th November 1873.

RESOLUTION—By the Government of Bengal, Judicial Department.

READ—

The Administration Report of the Jails of Bengal for the year 1872.

1. Mr. HEELEY's able and exhaustive report shows how thoroughly, as Inspector-General of jails, he has continued to do justice to the expectations formed of him. He has gone thoroughly to the core of all matters connected with jail discipline and management, and the Lieutenant-Governor has to thank him for much valuable work and a lucid report. As he shows, the department is in a transition state; some things have been done and more commenced. The reforms of last year have been fairly started, and it may be hoped are bearing fruit in the present year.

2. The Lieutenant-Governor trusts that Mr. Heeley will carry out his intention of bringing out a complete new jail code with all the latest improvements. This is very much wanted. Next year's report will, it may be hoped, show how the principles enunciated at the close of last year have been carried out in practice, and meantime the Inspector-General is, His Honor thinks, right in very much devoting his attention, and the greater part of his present report, to "individual jails." In truth, as in the entire absence of good jails in Bengal we cannot with our limited means make new and perfect jails all over the country at once, the Lieutenant-Governor has always assumed that our main care must be to make the most of the jails we have by improving each as its individual circumstances and peculiarities will best admit. This is the more necessary, as the greatest difficulties in respect of mortality, and in some other respects, that we have to contend with, are not so much general to Bengal as confined to some particular jails, to which most special attention must be given.

3. Mr. Heeley refers to criticisms of last year's report and resolution published by Dr. Mouat, the late Inspector-General of jails, in the *Times* newspaper. The Lieutenant-Governor does not remember exactly Dr. Mouat's criticisms. He believes they were of extremely general character. The reforms introduced within the last two years in the Bengal jail system have certainly been much criticised in several quarters, but no one maintains, or can maintain that, except in so far as (in common with most provinces in India, a great improvement had been wrought in the sanitary condition of the jails taken as a whole, they were otherwise in a satisfactory state. It cannot be alleged that the buildings were decently fitted for the

purpose; that the discipline was good; that there was any tolerable classification and separation of the prisoners. We do not allege that we have even yet made them satisfactory, or that we soon shall. It is a great and very difficult work. But the Lieutenant-Governor believes that we have made a good beginning, and that Mr. Heeley is efficiently carrying out some very great and beneficial improvements in the buildings, and in the discipline and the methods of our jails.

4. As regards sanitation, it is not to be supposed that the great improvements effected have brought the jails to anything like a satisfactory state of health. The statement in the margin shows the mortality in each year from 1857 to 1872. Roughly speaking, it may be said that whereas the mortality used to amount to 10 or 12 per cent., it had come down in the latter years of Dr. Mouat's incumbency, ending in 1870, to about 5 per cent. This is still a very heavy rate for an adult and able-bodied population, among whom are comparatively few old men. But it may be feared that nowhere in India have we learned to reduce the jail mortality to that of the ordinary population. The Lieutenant-Governor must differ from Mr. Heeley when he says (paragraph 4) that it is possible to take such measures as to bring the death-rate actually below that of the free population. If we had the power to reduce the death-rate by indulgence to, for instance, 1 per cent., we should of course not be justified in keeping up a system which involves a death-rate of 5 per cent. But it is because we have *not* discovered any means by which, while maintaining the semblance of prison, we can reduce the death-rate to a really low point, that we cannot absolutely sacrifice everything to a doubtful attempt to make a very small alteration in the health of the prisoners. Further on in Mr. Heeley's report it is shown that in fact the evidence on the point goes to prove that reasonable discipline and hard work, as compared with laxness of system, do not increase the death-rate, but rather have the opposite effect.

Total number of deaths during	Ratio per cent. of deaths to mean population in jail.	
1857	2,120	12.09
" " 1858	2,800	13.51
" " 1859	2,116	10.82
" " 1860	2,440	13.29
" " 1861	1,156	8.88
" " 1862	1,306	7.50
" " 1863	1,711	9.52
" " 1864	1,122	6.17
" " 1865	1,122	5.95
" " 1866	2,347	10.59
" " 1867	1,187	5.88
" " 1868	982	5.05
" " 1869	1,029	5.24
" " 1870	861	4.51
" " 1871	759	4.01
" " 1872	1,063	5.19
Mean	...	8.16

tively few old men. But it may be feared that nowhere in India have we learned to reduce the jail mortality to that of the ordinary population. The Lieutenant-Governor must differ from Mr. Heeley when he says (paragraph 4) that it is possible to take such measures as to bring the death-rate actually below that of the free population. If we had the power to reduce the death-rate by indulgence to, for instance, 1 per cent., we should of course not be justified in keeping up a system which involves a death-rate of 5 per cent. But it is because we have *not* discovered any means by which, while maintaining the semblance of prison, we can reduce the death-rate to a really low point, that we cannot absolutely sacrifice everything to a doubtful attempt to make a very small alteration in the health of the prisoners. Further on in Mr. Heeley's report it is shown that in fact the evidence on the point goes to prove that reasonable discipline and hard work, as compared with laxness of system, do not increase the death-rate, but rather have the opposite effect.

5. On the subject of our rebuilding partitions that Dr. Mouat

Partition walls.

pulled down, His Honor would only remark that some dividing walls are an absolute necessity. Till recently in Bengal, it was no unusual sight to see under-trial and non-laboring prisoners mixed up in the same yard with convicts, and no distinction attempted between criminals of various degrees and classes. To continue such a state of things was impossible, and partitions must be put up sufficient to prevent this.

6. The daily average number of prisoners under confinement during the year was 20,489, or 1,570 more than in 1871. The increase is common to all classes—civil, under-trial, and convicted prisoners. The increase in the total aggregate number of prisoners passing through the jails during the year, as shown in the table on page 4, is certainly remarkable, the number convicted during 1872 having been 5,342 more than in 1871. The Lieutenant-Governor will, however, for the present reserve the consideration of these and the other judicial statistics in Mr. Heeley's report. They are most interesting and important, but will be more conveniently dealt with in connection with criminal justice and police. His Honor will only here notice those parts of the chapter on jail population which have a departmental bearing.

7. The number of prisoners transferred during the year from one jail to another has been very large (18,819). These figures are, however, swelled in some instances by transfers in the same station between the central and district jails. The Inspector-General remarks upon the difficulties with which the transfer of convicts is attended owing to want of discipline among the police guards escorting them. The Lieutenant-Governor fears there is much truth in this; but it is even a more serious matter to find that European medical officers in charge of jails have in so many cases set at nought the positive orders of Government as to the class of men that should be transferred to central jails. The fact that 70 prisoners were sent to the Bhagulpore Central Jail works, who were men that had attempted escape, was not before known to Government; but several instances have been reported of the transfer of weakly and inefficient prisoners, and the Lieutenant-Governor has taken due notice of these. The recent orders imposing the check of further inspection by the Magistrate of drafts selected by the Superintendent for transfer, may stop the practice; but certainly such an order ought never to have been required.

8. The Lieutenant-Governor is glad to find that the orders of Government prohibiting the detention of any but very short-term prisoners in lock-ups have had a good effect in reducing the average detention from twenty to fourteen days. Some lock-ups were, however, far above this average. In the case of those in Assam, allowances must be made; but such instances as Pachumba, 56 days; Attiah, 43; Jehanabad, 30; and Burhee, 30, must not be allowed to recur. The Lieutenant-Governor has now, he hopes, made it clear both to the police and jail departments that it is quite unnecessary to send an armed guard of two policemen to escort to the sudder jail a petty thief or an old woman. He must insist on regular and speedy transfer from all lock-ups. There is certainly not the least pretext for keeping females in lock-ups long after conviction. They can always be sent in charge of a single constable, and require no formal guard, and from such a place as Barh they should be despatched to jail immediately.

9. The table of the ages of convicts on admission shows that there were only 327 who may be called juvenile, as being under sixteen years of age when convicted. There were only 32 under 12 years. There is a fact

very little juvenile crime in Bengal; and it is this which makes it difficult to attempt to apply any regular reformatory system to the cases which do occur. The juvenile ward in the Presidency jail is the only place in which this class of criminals can at present be conveniently brought together, and the Lieutenant-Governor will be glad to have the proposal made in paragraph 36, for declaring this ward a reformatory, submitted for consideration in a separate shape.

10. The percentage of mortality for 1872 shows an increase, being 5·19 against 4·01 in 1871; but, as remarked by Mr. Heeley, 1871 was

Sanitation.

an exceptionally healthy year, not only in jails, but in the country at large; while 1872 was marked by a serious outbreak of cholera, and by considerable unhealthiness of other kinds in the country generally.

11. Mr. Heeley discusses very fully and ably the question whether any of the increased mortality is due to the change in the jail system and the stricter discipline now enforced. The opinions of the Medical Superintendent on this point are sufficient on the whole to prove that this was not the case. Careful analysis of the death-rate in most of the principal jails has convinced the medical officers that there is no direct connection between the mortality and the improved discipline. Dr. Lynch shows that in Russa and Baraset, where no change of system was introduced, the death-rate rose, owing doubtless to the unhealthiness of the year; while in Alipore, where the new system was put in force with the greatest rigor, the mortality was 2·10 per cent. lower than it ever was before; and even if Baraset, which serves as a sort of out-hospital to Alipore, be taken into account, it is shown at page 110 that the combined death-rate of the two jails was lower by 1·02 than in 1871. It is true that some officers have recorded opinions of the contrary kind; but in fact these opinions are found on examination to rest entirely upon theory, and it so happens that they are contradicted by the statistics of the very jails of which those officers have charge. Dr. French thinks that the short-term men suffer most, but he seems to attribute this to mental depression rather than to penal labour; and the mortality in his jail (Burdwan) was certainly not more than might have been looked for from the state of the district generally, but the contrary. In fact, however, the statistics of every jail show, as Mr. Heeley points out, that it is long-term prisoners to whom the first six months of their imprisonment are most dangerous, and that the short-term men, in spite of their penal labour, are better than the others. Dr. Bensley of Rajshahye again, while in one sentence attributing an injurious effect on the death-rate to harder work and strict discipline, adverts in the next to the fact that the death-rate of his jail has fallen from an average of 8·73 to 2·33. The same may be observed of other places—Bogra having fallen from 10 deaths to one, Rungpore, from 13·10 per cent. to 3·59—facts quite opposed to the theories of the Superintendents in charge; and the Lieutenant-Governor has no doubt that the Inspector-General has arrived at a correct conclusion when he states that there is no evidence whatever that increased mortality is attributable to better discipline and harder work; and that while medical officers use judiciously the discretion which they have in respect of individual exemptions, there is no reason to fear the contrary.

In truth, the mass (nine-tenths) of the jails were as healthy or healthier in the past year than they ever were, and the increased mortality is due to three or four notoriously unhealthy jails, where, owing also to epidemics, &c., the death-rate has unhappily risen beyond that of any recent year—very far beyond it indeed in one or to cases. These were the very jails in which we were fore-warned and fore-armed, and in which we have attempted ameliorative measures instead of pressing the prisoners, though unhappily the taint in them has so far got the better of us. Extramural labor has also in some places proved unfavourable to health; but at Midnapore, where this was most marked, the work was stopped. The mortality had nothing to do with any change of system, the extramural system having been introduced under the former *regime*.

12. Of the 1,063 deaths that took place during the year, 135 were due to cholera; 37 of these being in Tirhoot, 20 in Julpigoree, 13 at Dehree, and 13 in the Presidency. There had been no cholera in these jails in 1871. Dysentery was worse than usual, causing 332 deaths, owing probably, Dr. Lynch suggests, to the excessive rainfall of 1871, and subsequent malaria having told upon the health of the population for 1872. Fever again appears to be less fatal than is popularly supposed, only 125 deaths being due to this, which 22 were at Backergunge.

13. Julpigoree is a very petty place—hardly a jail. The frightful percentage of mortality here (42·62) is due to an outbreak of cholera, which, as above noted, carried off 20 out of an average daily population of 61 only. There is nothing therefore in this result on which to generalise. The Lieutenant-Governor is happy to say he has since visited this jail and found it quite healthy, and apparently the present accommodation is excellent for the number of prisoners confined there. Tirhoot and Chumparun will be specially noticed below. The rate at Baraset, taken with Alipore jail, is not unfavorable (1·7); on the contrary, it is better than it ever was before; but precautions have been taken to prevent any overcrowding of the aged prisoners and invalids, who form the chief part of the inmates at Baraset. The unhealthiness of Hooghly (9·03) is still not accounted for. The Inspector-General must pay rigorous attention to this jail, and endeavour to find out what is the matter with it. Mr. Heeley intimates his intention of transferring to Hooghly only strong and healthy men. This should be the rule certainly, but the efforts to discover the cause of its continued unhealthiness should not be relaxed.

In Backergunge (15·59), it is clear that something must be radically wrong. This jail has been a constant subject of anxiety, and we are now altering the entire structure of the jail, erecting double-storied barracks, and putting in arched floors, and must persevere till we have remedied its state most thoroughly.

In Midnapore (8·7), the mortality was due to, we hope, temporary causes. It has been the subject of much discussion, and seems to have been more or less explained by the exposure at extramural labor in the quarries. The stone quarrying has been stopped, and it is hoped the evil has now been remedied.

In Russa Female Jail (8.33), further explanation is required of the high mortality, which was, it seems, chiefly from dysentery. There is said to be an improvement this year, but the matter requires careful enquiry.

At Dehree (7.75) cholera and the general unhealthiness of the year accounted for much, and the evil was, it is believed, only temporary.

The rate of Bhagulpore district, taken with the central jail, was not bad (3.77); but the Lieutenant-Governor is sorry to hear of a serious outbreak of cholera in 1873.

Gya (7.03) is clearly a bad jail, and under all the circumstances the Lieutenant-Governor has now determined to build a new one on a new site. Proposals for this may be sent in at once.

The rate at Burdwan (7.18) was not more than might have been expected from the fever-stricken state of the district population.

Purneah, with a rate of 6.58, is also an unhealthy place, and we can only strive to improve the jail as much as possible. Of the 20 prisoners who died, it is noticeable that 19 were engaged on light, not penal labor.

Jessore (5.64) and Sylhet (5.61) show higher rates than usual this year. Here also improvement must be sought after.

At Moorshedabad (5.10) the new jail will soon be ready, and things should be better.

In the Presidency jail, native (4.69) and European (8.99), we have to regret a falling back owing largely to cholera. Here no change was introduced by the hard labor system. The Lieutenant-Governor trusts this jail will recover its position. The mortality among Europeans was quite abnormal, 3 deaths being from liver abscess, 2 from typhoid, apparently brought into jail, while 2 were cases of men admitted in a weakly state.

In Patna (3.67) under-ground drainage experiments had been proposed to meet the cholera which always haunted the jail; but cholera left before the work began. If this had happened after, it would have been considered proof of the advantage of under-ground drainage. As it is, we are unable to account for the improvement. We may certainly congratulate ourselves on the comparative healthiness of Patna, Rungpore, Dinapore, Rajshahye, Dacca, and also of the Assam jails as a whole.

14. On the whole subject of jail healthiness, it might almost be said that the only rule seems to be a rule of contraries, the jails at the unhealthiest places being the healthiest; *e.g.*, Chittagong and Noakholly, notoriously bad places, yet having healthy jails; Dacca (perhaps falsely) reputed unhealthy, and certainly shunned by Europeans, yet of late years having a very healthy jail; while even Rungpore shows a mortality reduced below the average. On the other hand, jails at healthy places are very deadly, as at Backergunge, Hooghly, and Midnapore.

15. The singular contrast between the jails of Eastern Bengal, a country generally considered so unhealthy, and those of Behar, generally considered so healthy, is again most marked. Behar is undoubtedly very healthy both for Europeans and natives; supports a great population, and sends out a surplus population such as no other part of India does. Why then, it may well be asked, are its jails so unhealthy? There is not a jail in Behar where there has not been frightful mortality within a few years, and where the average of 15 years is not very large. We have happily reduced the death-rate, formerly so frightful in South Behar, except at Gya, where a bad jail may perhaps in some

degree account for it; but still in North Behar we have a mortality and a constant anxiety as to the jails, far beyond that in most other parts of the country. All the jails there show a mortality above average; Tihroot (20·89), and Chumparum (13·75) frightfully so. In 1871 overcrowding was alleged in Tihroot as the cause. In 1872, 316 prisoners were transferred to other jails. The district is large and populous, and the number of short-term and weakly prisoners unfit for transfer coming into the jail is so great, that it is said to be impossible to deplete the place thoroughly. The Lieutenant-Governor sanctioned extensive additions and alterations, but these have not yet been carried out in spite of the very urgent orders given to let no considerations stand in the way. Further discussion has, however, it is said, become necessary. The Lieutenant-Governor must insist on having discussion brought to a conclusion, and building begun and pushed on as rapidly as possible. The present building itself is a very open jail, with high, healthy-looking wards; overcrowding apart, there is certainly no apparent reason for unhealthiness. This year a severe cholera epidemic, added to the endemic sickness, has made the rate frightful; but even cholera apart, dysentery and other diseases are terribly fatal. His Honor is glad to learn that this year up to the middle of July there had been only 14 deaths in Tihroot. Chumparum also is to all appearance a good, healthy jail.

16. Looking to the persistent excessive unhealthiness of Behar jails as compared to those of Bengal on the one side, and to those of the similarly situated districts, with similar populations, in the North-Western Provinces on the other, the Lieutenant-Governor is haunted with the suspicion that the connection of Behar with Bengal, and the application of Bengal principles in regard to food, water-supply, beds, or we know not what, may have something to do with it. He thinks we should try to get a North-Western Province jail officer, and associate him with Dr. Lethbridge, of Punjab experience, and some of the best of our local officers, to form a committee to enquire into, and report on the history and system of Behar jails. The Lieutenant-Governor of the North-Western Provinces will, with the sanction of the Government of India, be asked if he could lend an officer temporarily for this enquiry. Meantime the radical improvements in the Tihroot jail must be pushed on, and no time must be lost in starting the new jail at Gya above sanctioned.

17. The general result of the Inspector-General's enquiries is

Effect of transfers on health.

to convince the Lieutenant-Governor that we should not transfer Bengal men in large numbers to Behar, and that seeing how deficient Bengal is in central jails, we must supply more such jails there. The Lieutenant-Governor agrees that another new one must be built; and as Fureedpore is to be kept up as a district, His Honor is willing to consider favourably a proposition for building there a central jail for East Bengal. Immediate special report on this matter should be submitted.

18. Also the Lieutenant-Governor is willing that Rajshahye should be put on the footing of a central jail, and proposals to that end may be drawn up. Dr. Bensley has eminent merits as a jail superintendent, and His Honor is sure that in his hands such a plan would be well carried out.

19. Where, as in Fureedpore, and perhaps Rajshahye, there is only a small civil station, if a medical man is superintendent of the

jail, he might also, if well qualified, have the general superintendence of the civil station, a good first-class sub-assistant surgeon being put under him to assist in that duty. This would save an increase of expensive appointments. The Surgeon-General will be consulted on this.

20. This chapter should in future be headed "Jail Buildings."

The improvement of the district jails and lock-ups of Bengal, and the building of solitary and punishment cells, the completion of the central jails, and the provision of separate hajuts for under-trial prisoners, have been subjects to which constant attention has been given during the year. Not so much actual work has been done as had been hoped for, but a very great deal has been planned and put in train, and with a budget grant of Rs. 6,87,000 for the year 1873-74 there ought to be considerable progress visible before long.

21. The central jail works have been getting on but slowly. Alipore is now, however, completely sub-divided, and is for the first time in its history tolerably secure from the risk of combination and outbreak among the prisoners; while at Midnapore, Bhagulpore, and Hazareebagh, vigorous efforts must be made to push on the buildings more rapidly than heretofore. It has been stated that one reason of the comparatively slow advance of these works is the insufficient proportion of paid skilled labor allowed to direct and instruct the convict workmen. The Public Works Department must direct attention to this point. It is false economy to delay the completion of these jails longer than can be helped.

22. New jails at Mymensingh (on a new plan), Nya Doomba, Lohardugga, and the Khasi Hills, have been sanctioned; much has been ordered and is doing to improve Dacca, Burrisal, Tirkoot, Jessore, and Dinagepore, and the scheme of separate hajuts is well advanced. The Lieutenant-Governor hopes the new model plan of a district jail, which is being tried at Mymensingh, will answer expectations. There is a great need of providing small but decent European wards in districts where this class of prisoners may be looked for, and the Inspector-General should not overlook this point.

23. The Lieutenant-Governor has found that in some cases, where we had settled ground-plans and the general plan of lock-ups, hajuts, &c., their execution was being too much left to the Department of Public Works, who cannot be expected to know the requirements precisely. He begs that every step and every inch of progress may be narrowly watched by the local officers responsible for the jail management. It must be quite understood that under the present system the civil officers are responsible for everything that is done as respects the arrangements and design. There must be thorough communication with, and instruction of the Public Works officers on all non-professional points, and the Inspector-General must narrowly watch the details of rising buildings, to see that they are thoroughly suitable, and all little conveniences are provided. He must not trust to the Department of Public Works to do this of themselves.

24. The Lieutenant-Governor is quite satisfied of the necessity of increasing the staff of regular warders, while the police guard is correspondingly diminished. Also it is settled that in small lock-ups

Guarding.

and hajuts warders may be altogether substituted for police for *ordinary* purposes; and he hopes this will be carried out. At the same time we must insist on the police supplying a regular guard when there are unusually dangerous prisoners. We cannot at all times and all the year round keep up at every place a permanent establishment enough to guard any set of desperate dacoits who may come in once in a year or so. The Jail and Police Departments must pull well together, and not act at arm's length departmentally. We must get rid of that intense departmentalism against which the Lieutenant-Governor has been struggling. His Honor must insist much on that. He has directed that in all new sub-divisions and new buildings it should be arranged, if possible, that the lock-up and thana should be contiguous, so that with separate administration one may have the support of the other. This must never be lost sight of.

25. It is very unsatisfactory to see the failure to carry out the orders for improved discipline and penal labor in some lock-ups, as noted later on in paragraph 134. His Honor fears there will be much of this whilst lock-ups are under police not trained to jail work, and periodically changed. With a lock-up establishment this must be wholly reformed. There is a crying necessity for this, and it must be insisted on. The regular transfer of prisoners to sudder stations will, however, do much to prevent such abuses.

26. The Lieutenant-Governor does not expect reduction of expenditure by substituting warders for police; if, as Mr. Heeley promises, there is only a very slight increase, His Honor will be quite satisfied.

27. It is satisfactory to see that there were fewer escapes from jail during the year under review. As regards lock-ups, it must be admitted that the reduction of guards attempted last year has ended unfortunately with such lock-ups as we have, but the increased escapes were solely due to two or three unfortunate cases, and these again occurred from the breach, not from the observance, of orders. It never was supposed that two men would guard properly a gang of desperate criminals. Express provision was made for extra guards in such cases. It not only might be, but actually was the fact, as suggested by Mr. Heeley in paragraph 98, that in one instance when a strong extra guard was required to look after a sudden influx of dangerous prisoners, a roundabout process of official requisition and correspondence was resorted to, and that the prisoners escaped, while their guards were being only talked about. Departmentalism has been scotched, but, His Honor fears, not killed; however, we are keeping the monster down, and hope to get the life out of him soon.

28. The Lieutenant-Governor has accepted in the main Mr.

Heeley's proposals with reference to the salaries of jailors. The commission

Establishment.
system, carried to the extent it was, was pernicious in every way, and will shortly be done away with. The scheme for naib jailors and warders also commends itself to His Honor's approval; but it is desirable to have all these proposals involving financial considerations in a complete shape before finally sanctioning them. The substitution of warders for police in lock-ups has already been complicated by the

difficulty of removing the head constable, who at present has charge of the treasury as well as of the lock-up guard.

29. There is a large increase in the return of jail offences and

Conduct of Prisoners.

punishments. The change of system in jail discipline must of course involve some increase of punishments at first, but it is hoped this will soon cease; the efficient superintendent is he who succeeds without severe punishments. The Beerbloom system of flogging wholesale was intolerable, and severe notice was taken of it. His Honor is glad to learn that Dr. Barker has wholly changed his system.

Again, in the Presidency Jail, and after making every allowance for the class of prisoners confined there, there is no doubt flogging is carried to excess. Despite all Dr. Mackenzie's merits, the Lieutenant-Governor must insist that he will abate that; not abandon it in necessary cases, but abate the present excessive resort to flogging in his jail. The Inspector-General will be held responsible for effecting a change in this respect.

30. The mark system, which has been introduced very lately,

Rewards.

will, it is hoped, place the whole system of remissions and reward on a more satisfactory footing. There will now be a tolerable guarantee that these will go by merit, and not by chance selection. The prisoners will have tangible inducements to steady good conduct; while there will be less executive interference with the effects of judicial sentences, inasmuch as dangerous or habitual criminals will earn only a modified remission, and be under surveillance to the end of their terms.

31. The Lieutenant-Governor is glad to know that Mr. Heeley

Registers and Returns.

has been able to revise and reduce the registers and returns which were far too elaborate hitherto, and calculated only to defeat their own object.

32. In stating the percentage of prisoners engaged in labour.

Employment.

Sundays and holidays should not be deducted in calculating the number employed. The number employed on working days should be taken.

The Lieutenant-Governor is glad to see increased employment on manufactures, and diminution of useless jail servants.

33. He must, however, again dwell on the advantage of providing penal labour for short-term prisoners in every jail and lock-up. Some improvement has taken place in this respect, but not so much as ought to be the case. Treadmills are being put up at several jails, and when the special enquiries now being made in England as to cranks and other mechanical appliances are complete, it is hoped that every place of confinement will in time have the means of exacting penal labor.

34. As regards the practical difficulty of providing penal labor for all short-term men, the Lieutenant-Governor does not object to the Inspector-General's exercising a discretion and looking to the nature of offences. He does not wish all short-term prisoners to be equally punished, absolutely and literally. He only does not wish to make so sweeping a difference as shall nullify altogether the work of judicial officers in apportioning sentences. At any rate, while means of hard labor are deficient, the Inspector-General may select the classes of criminals for whose benefit they are to be used.

35. The returns show that the net profits in most jails have somewhat fallen off, but not on the whole to an excessive degree. The great number of prisoners employed on miscellaneous duties is still very unsatisfactory, though useless jail servants have been generally reduced; but it is reported that some jail officers seem very helpless about devising industrial employments. The central jails will, when completed, concentrate labor and make the outturn more satisfactory. In lock-ups the employment of a warder-guard should lead to improvements, and secure some return for the labor which is now exacted in these places. The Lieutenant-Governor quite approves of the general stoppage of extramural work, except for purposes of health and upon jail buildings in the garden or the brick-field.

36. There is doubtless much in what Mr. Heeley says about the difficulty of inducing all superintendents to take an earnest and intelligent interest in the industries of their jails. We cannot afford to neglect entirely the question of remunerative labor; but there is nothing naturally antagonistic between labor that pays and labor that irks. It is disappointing to learn that on inspection many of the jails in which the Lieutenant-Governor's orders were reported to have been carried out were found so wanting; but Mr. Heeley has the question well in hand, and much may be hoped for from the attention he has given to it.

37. The cost of supervision has risen from Rs. 34,548 to Rs. 41,397, but this was almost accounted for by the full salary of the Inspector-General being drawn this year, while there were savings last. The cost of establishments had also risen from Rs. 2,62,737 to Rs. 2,68,176, but the difference is fully explained, and was not at all in proportion to the increase in the jail population. There was also an increase in the cost of police guards from Rs. 1,96,620 to Rs. 2,09,311. Rations had of course cost more owing to the larger number of mouths to feed, and stood at Rs. 5,41,198, against Rs. 4,91,205; the rate per man was 7 annas 2 pies more than in 1871. Hospital charges were Rs. 27,769, and clothing cost Rs. 78,959, or Rs. 14,476 over last year. This last increase is not altogether explained. Contingencies also rose slightly to Rs. 63,378. The total expenditure, including buildings, was Rs. 14,98,656, or Rs. 73-3-1 per man, against Rs. 13,20 606, or Rs. 70-5-8 per man, in 1871. The increase is mainly due to increased activity in jail building, the outlay being Rs. 2,50,232, against Rs. 1,69,619 in 1871. Excluding buildings, the total cost was Rs. 12,48,424 as against Rs. 11,50,987 in the previous year.

The general result may be accepted as satisfactory, showing improvement affected without serious expense to the State. The European jails are naturally very expensive, and tend to raise the average much. Assam and Darjeeling are also unavoidably expensive places; but it should be explained why Kamroop and Julpigoree should show largely increased charges. Doomka, Pooree, Bogra, and Singhbhoom, are much above the average, apparently because being small jails the cost of their guards and establishments is relatively greater.

38. As regards profits from manufactures, it appears that, excluding Alipore, the final balance of profit on the outturn, minus, the

expenditure in mofussil jails, was Rs. 90,900 against Rs. 1,00,300 in 1871. There was a much greater outturn of work, but a largely increased expenditure on comparatively unproductive and penal labor. The Lieutenant-Governor must repeat what he said last year, that our mofussil jails never were profitable to an extent to justify the sacrifice of system. He would express his satisfaction at the general results of the present year, attended as they are with improved discipline and new non-paying penal labor. At the same time he thinks gunny-weaving may be extended, and that there is room for improvement in paying occupations. The Lieutenant-Governor has already noticed the Inspector-General's statement that some jail officers are painfully helpless about providing industrial employments, and seem as if they had never given a thought to the matter; and His Honor would here again entirely endorse Mr. Heeley's views in paragraph 153, that prisoners, if properly looked after, ought to show something for their work. The present waste of power, of which the Inspector-General complains, he must do all he can to correct; and superintendents must not, while enforcing penal labor, lose sight entirely of the prospect of earning a legitimate profit.

39. On the whole, however, thanks to the great and continued success of Alipore, the net balance of profit for the year was Rs. 2,72,400, against Rs. 2,24,700 in 1871. The profits of the Alipore mills were Rs. 1,81,500, against Rs. 1,24,300. This is explained by the great fall in the price of jute, which "caused the year to be one of unexampled prosperity for the trade of gunny-weaving. Dr. Lynch, however, warns us that a succession of such years is not to be looked for; it is probable that the extreme limit of profits has been already reached; competition has begun to an extent which threatens to destroy profits altogether." Whether this is a correct anticipation or not, it is certain that it is very important to develop the manufacture departments of central and district jails to meet the very probable fall in the net returns of Alipore.

40. Looking to the returns of the district jails, it appears that in eight the expenditure on manufactures actually exceeded the returns from sales. This is a result which should certainly be carefully examined, and if possible corrected. Twelve jails just cleared their manufacturing outlay by a mere fraction, while in only nine jails were the profits really large. This has in fact always been the state of things as regards the profits of Bengal jails; the profits were made up of Alipore, (actual and press account) and a few other jails; the majority gave little real profit. Rajshahye, Hooghly, Mymensingh, Russa, Purneah, and Cachar were the jails where profit was largest in proportion to the expenditure in the past year.

41. The net profits of the Alipore Jail Press are shown at Rs. 1,05,904, but these are only book-earnings. The press has no cash receipts.

42. The Lieutenant-Governor has read with interest Mr. Heeley's account of the different jails contained in Part II. of his report. His Honor will not attempt to deal with all the points of detail that arise here and there in these summaries. Mr. Heeley is in possession of the views of Government, and must himself issue orders to correct anomalies, reform abuses, and push on improvements, where these are required.

In several instances, where discrepancies in the accounts of superintendents are indicated, full enquiry should be made, and the matter should be cleared up.

43. The following table exhibits jail expenditure and receipts in a compendious form :—

HEADS.	Jails.	Lock-ups.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Supervision	41,396 15 6	.....	41,396 15 6
Rations	5,03,198 15 3½	37,999 1 2½	5,41,198 0 6½
Establishment, fixed	2,40,744 1 7	22,810 9 8	2,63,553 11 5
Ditto, extra	4,621 13 5	..	4,621 13 5
Hospital charges	27,331 2 4	438 5 11	27,769 8 3
Clothing	77,884 8 3½	1,074 13 11	78,958 4 2½
Contingencies	56,199 0 6½	7,179 8 3½	63,378 8 10
Petty repairs	15,784 11 8	2,452 3 6	18,236 15 2
Total	9,67,160 4 7½	71,954 10 6	10,39,114 15 1½
Cost of Manufacture Department	4,73,086 13 6½	..	4,73,086 13 6½
Grand Total	14,40,247 2 2½	71,954 10 6	15,12,201 12 8½
Receipts from sale of manufactures	7,22,541 9 0	..	7,22,541 9 0
Net expenditure by the Jail Department	7,17,705 9 2½	71,954 10 6	7,89,660 3 8½
Police guards	1,65,918 1 1	43,395 1 9	2,09,313 2 10
Total expenditure of the Jail Department ..	8,83,623 10 3½	1,15,347 12 3	9,98,971 6 6½

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MORTALITY IN JAILS DURING 1873.

Mortality in Jails during 1873.

No. 642, dated Calcutta, the 14th February 1874.

From—RIVERS THOMPSON, Esq., Secretary to the Government of Bengal,
To—The Inspector-General of Jails.

I AM directed to acknowledge the receipt of your letter No. 884, dated the 5th instant, submitting with your remarks, a statement showing the mortality that has occurred in the several jails under your control during the year 1873.

2. In reply I am to thank you for your early report on the subject, and to say that the Lieutenant-Governor is extremely glad to see the reduced mortality that has taken place during the year in question as compared with the previous year, and trusts by vigilant care that it may be yet further reduced. Unfortunately, we are still liable to have the average mortality increased by the outburst of fatal epidemics. That of cholera at Bhagulpore was most sad and unfortunate, and resulted in a large number of deaths. The mortality in the small jail at Singhbhoom seems to have been due to a similar cause. The mortality at Gya may, to some extent, be due to a bad jail. A new jail on a new site has already been ordered, as will be seen from paragraphs 13 and 16 of the resolution recorded by the Lieutenant-Governor on your Jail Administration Report for 1872, and His Honor now awaits the submission of definite proposals for its construction. These should be sent as speedily as possible. The jail at Chumparun is an unfortunate one, though it looks as if it ought to be healthy. The Lieutenant-Governor will be glad to receive any suggestions regarding it. Fortunately, the excessive rate of mortality in the Khasi Hills jail is on an extremely small scale. The necessity for a new jail at this place has been already acknowledged. The attention of the Chief Commissioner of Assam will be drawn to the high rate of mortality in this jail and in the jails at Goalpara and Kamroop.

3. On the other hand, the Lieutenant-Governor is very glad to see great improvement in some jails which had suffered much previously. It is a comfort to know that the Midnapore jail, which so suffered has been very healthy, and Julpigoree tolerably so. Tirhoot, though still unhealthy, is much less so than before, and Backergunge, Delhi, and Baraset, have much improved. His Honor is also glad to observe that there have been no deaths at all among the European prisoners in the Presidency jail and in the Hazareebagh penitentiary.

No. 643.

COPY of the correspondence forwarded to the Chief Commissioner of Assam for information, with reference to the remarks made regarding the high rate of mortality in the jails at Kamroop and Goalpara and in the Khasi Hills.

No. 884, dated Alipore, the 5th February 1874.

From—W. L. HEELEY, Esq., Inspector-General of Jails, Lower Provinces,
To—The Secretary to the Government of Bengal, Judicial Department.

I HAVE the honor to forward, for the information of His Honor the Lieutenant-Governor, and in anticipation of my annual report for 1873, a table showing the mortality for 1873 in the jails under my control.

2. The death-rate for 1872 was 5.19, or rather higher than in 1870 and 1871, though not higher than in previous years, and I was at pains to show in my report for that year that the increase could not be ascribed to the reforms in jail management introduced under the present Government, partly because some of these reforms had not had time to produce an effect, partly because in many jails where the reforms were most unsparingly carried out there was a diminution instead of an increase of mortality, but to the circumstances of an unhealthy season. This is confirmed by the statistics of the present year, which show a reduction in jail mortality of about half per cent., from 5.34 to 4.78, although the evil effects of change of system, if they existed at all, must have been greater in 1873 than in 1872.

3. The death-rate all round was, as I have just said, 4.78. This was largely exceeded in the following jails:—

Khasi Hills...	21.50*	Bhagulpore Central ...	12.08
Chumparun...	14.81*	Goalparah ...	11.64
Bhagulpore District ...	14.34	Singbhoom ...	10.69
Gya ...	13.79		

The mortality of Bhagulpore and Singbhoom was largely due to epidemics of cholera, which have already attracted notice; that of Gya was mainly caused by dysentery, and was probably to some extent the result of over-crowding.

4. No European deaths are reported during the year either at the Presidency or Hazareebagh.

5. Compared with 1872, the jails which show a considerable increase of mortality are—

	1873.	1872.
Khasi Hills ...	21.50	against 11.11
Bhagulpore Central ...	12.08	„ 1.93
Goalparah ...	11.64	„ 4.08
Bhagulpore District ...	14.34	„ 7.23
Gya ...	13.79	„ 7.03
Singbhoom ...	10.69	„ 4.44
Kamroop ...	6.59	„ 1.32
Rungpore ...	7.70	„ 3.59

Those which show a decided decrease are—

Julpigoree ...	5.71	against 42.62
Tirhoot ...	8.33	„ 20.89
Baraset ...	7.04	„ 18.06
Presidency, European ...	.....	„ 8.99
Backergunge ...	7.50	„ 15.59
Midnapore Central ...	2.21	„ 8.90
Seebasagor ...	2.00	„ 8.60
Russa ...	3.05	„ 8.33
Pooree ...	1.48	„ 6.52
Dehri ...	3.06	„ 7.75
Moorshedabad ...	0.68	„ 5.10
Hazareebagh Penitentiary ...	.....	„ 4.06

* Always unhealthy.

Statement showing the ratio per cent. of Deaths on average number, and number of Deaths from Cholera during the year 1873.

JAILS.	Daily average number of all classes of prisoners confined during the year 1873.	Total number of deaths.	Percentage of deaths on average number.	Number of deaths from cholera.	Percentage for 1872.
Burdwan	310.13	28	9.02	4	7.18
Bankoora	240.71	7	2.90	.....	.....
Beerbhoom	318.66	24	7.53	.....	4.43
Midnapore District	419.35	26	6.20	.....	8.53
Ditto Central	766.34	17	2.21	.....	8.90
Hooghly	488.27	20	6.14	2	9.03
Presidency, Europeans	61.80	.....	.....	.....	8.90
Ditto Natives	942.45	27	2.86	5	4.09
Alipore	2,186.93	60	3.01	8	2.78
Russa Female Prison	262.00	8	3.05	1	8.33
Baraset	227.30	10	7.04	...	18.06
Nuddea	358.71	5	1.39	.....	2.04
Jessore	465.00	11	2.36	...	5.64
Moorsheadabad	201.91	2	0.68	1	5.10
Dinapore	499.51	15	3.00	.....	3.68
Maldah	57.96	3	5.17	.....	4.88
Rajshabye	627.00	18	2.87	.....	2.33
Rangpore	402.12	31	7.70	...	3.56
Bogra	124.28	6	4.82	4	1.85
Pubna	152.00	2	1.31	.....	3.31
Darjeeling	35.42	1	2.82	...	3.85
Jalpigoree, for 8 months*	*87.50	5	5.71	1	42.62
Dacca	631.00	23	3.64	5	1.40
Fareedpore	412.36	3	0.72	.....	0.55
Backergungo	519.99	39	7.50	4	15.59
Mymensingh	500.00	20	5.80	.....	3.79
Sylhet	341.17	17	4.98	...	5.61
Cachar	90.93	1	1.09	.....	2.63
Chittagong	240.00	5	2.08	...	2.61
Noakholly	162.35	2	1.23	.....	1.22
Tipperah	282.33	13	4.60	...	1.29
Meatapore	421.52	23	5.45	8	3.67
Dehri Convict Camp	653.00	20	3.06	2	7.75
Gya	492.97	68	13.70	1	7.03
Shahabad	416.00	36	8.50	17	3.31
Tirhoot	468.00	39	8.33	3	20.89
Saun	329.27	10	3.03	1	5.74
Chuanparun	216.00	32	14.81	8	13.75
Monghyr	373.81	10	2.67	...	3.01
Bhagulpore District	306.75	44	14.34	4	7.23
Ditto Central	910.10	110	12.08	44	1.93
Purneah	348.23	10	2.88	.....	6.58
Rajmehal	79.19	2	2.52	.....	3.68
Nya Doomka	23.25	.....	.....	.....	3.13
Cuttack	269.70	4	1.48	1	4.15
Pooree	67.15	1	1.48	1	6.52
Balasore	175.90	2	1.13	...	1.23
Hazareebagh European Pntny.	81.17	...	.....	.....	4.06
Ditto Native	1,106.72	28	2.53	...	4.41
Lohardugga	240.00	5	2.08	1	1.97
Singbhoom	74.85	8	10.69	6	4.44
Manbhoom	201.00	7	3.48	3	2.22
Goalparah	94.45	11	11.64	6	4.08
Kamroop	106.19	7	6.59	1	1.32
Durrung	158.47	6	3.78	1	3.03
Nowgong	84.63	2	2.36	.....	2.04
Sebsaugor	100.00	2	2.00	.....	8.60
Luckimpore	69.49	1	1.43	...	3.08
Khasi Hills	37.20	8	21.50	1	11.11
Total	204.11	976	4.78	144	5.34

RESOLUTION ON THE WORKING OF THE
REGISTRATION DEPARTMENT FOR 1871-72.

Resolution on the working of the Registration Department for 1871-72.

Dated Calcutta, the 25th October 1872.

RESOLUTION.—By the Government of Bengal, General Department.

READ—

The report on the working of the Registration Department during the
year 1871-72.

1. The Lieutenant-Governor desires that his thanks may be conveyed to Mr Beverley for his able administration of the department, and his full report on the working of it. His Honor considers him worthy of great praise for the way in which he has managed efficiently to supervise the registration work during the year, notwithstanding his arduous labors in connection with the census. Mr Beverley is now about to leave for England after a long and successful administration of the department, and the Lieutenant-Governor much regrets the loss which his departure will occasion.

2. The Lieutenant-Governor is of opinion that this is not the place, and that the time has yet hardly come, to discuss in detail the results of the new registration law of last year. His Honor, however, rejoices in the abolition of the special registry with effect of a decree of court, which gave to the department functions beyond those properly belonging to it without providing sufficient safeguards. The machinery of registration is well fitted to record the execution of deeds and contracts, but not to ascertain the conditions which are necessary before the law is invoked to put them in execution.

3. As respects the change which renders it no longer obligatory to register decrees of court, whatever the reasons of the course followed, it is certain that the effect is that we have nowhere a complete register of the obligations and burdens affecting immovable property. As a matter of fact, scarcely any decrees have been registered under the optional provisions.

4. The change which abolishes the central registry office at the Presidency as a depository for copies of all indexes affecting immovable property, throws on the Government a greatly increased responsibility for the safe custody of records in very many offices scattered over the country, these being now the sole depository of registration documents with no resource in case of fire or other accident. That is a responsibility which, in the present state of our buildings and administrative arrangements, we are hardly prepared to meet, and the burden would be intolerable if the Government had not, going, the Lieutenant-Governor believes, somewhat beyond the law, arranged that the indexes of the registrars and head-quarter sub-registrars of districts should still

be sent to Calcutta, while the retention for a time of the indexes of registration at the offices in the interior of districts gives a certain aid in case of accident at the head-quarters occurring before the whole records are centralized.

5. In dealing with the subject of registration buildings during the year, the Lieutenant-Governor has said that with as great a task before us it would be impossible to attempt to provide secure buildings for all the sub-registrars in the interior of the country. His Honor thinks that we must concentrate our efforts on the head-quarters' offices of permanently established districts. As regards the sub-registry offices of the interior, the remedy must rather be sought in sending the copies of documents to head-quarters as soon as possible, retaining the indexes for reference as above stated. For this purpose it would be desirable that the registration books of small offices should not be made too numerous by a too great sub-division of subjects, nor too large, but should be so arranged that they may be quickly filled and quickly sent away. At many sub-divisional stations there are decently secure buildings.

6. As regards the sub-registrars distinguished in the report as rural, it must be a condition of their appointment that their records are not exposed in a very inflammable construction, but kept in a building secure as native buildings go, and that no delay takes place in completing the copies and sending them away for record. The practice of keeping original documents for long periods should be strictly prohibited in all offices. In the case of all sub-registrars' offices, whether sub-divisional or rural, which are thoroughly well established, and where there is an entire absence of any decent covering, some assistance may be at once given towards a small brick-house for the records; but for a regular system of inferior registration offices, we must wait till the head-quarters' necessities are completely met.

7. With respect to these latter, the Lieutenant-Governor thinks the Inspector-General puts his difficulties rather too strongly. Whatever may have been the case when the financial pressure checked everything, His Honor does not think he has rejected many applications for registration rooms where they were shown to be necessary, and the circumstances of the places for which they were proposed were such that they could be prudently built. One difficulty, perhaps, arises from the special use of the expression "department." It is hardly desirable, if it were possible, to establish registration offices everywhere as an entirely separate institution. They are under the head of each district as registrar, and must be treated as part of the general administrative machinery of the country. It is very desirable that they should share the protection afforded to the treasury and stamps and general records, and adequate accommodation should be secured for the registration records in close connection with these latter. The Lieutenant-Governor considers that, where necessary, it is right that the registration records should be secured, even if it involves sending the current office or court of one of the officers of the district establishment into a thatched or otherwise insecure building; and His Honor begs that Magistrates will follow that course if need be, and, at all hazards, secure the registration records so far as security is possible. For the rest the Lieutenant-Governor is quite ready to comply with the demands of the Inspector-General, so far as is consistent with the above explanations. His

Honor very recently went over the list of district registration offices. He thinks he did not find extreme deficiency of accommodation to be so very frequent after all, and he gave the necessary orders where required, and promised considerable grants for new buildings; but whatever is still wanting, the Inspector-General should separately represent.

8. In paragraph 41 of the report, the Inspector-General quotes a description given by the registrar of Chittagong of the dilapidated state of many of the *cazees'* records made over to the Registration Department in 1865. The Lieutenant-Governor thinks that these records should be examined as far as possible, and desires that accommodation may be found for all of them which are not clearly shown to be absolutely worthless. They should not be rashly destroyed. If, as is asserted, the paper was thin on which these records were kept, it was generally tough, and better than very much of the paper we get now-a-days.

9. The Lieutenant-Governor considers that the arrangement, as described in paragraph 6 of the report, by which a special sub-registrar is both a general assistant to the registrar and available for the inspection and supervision of rural registration offices, is a most excellent one, if it can be properly carried out. His Honor's principal fear is with regard to the competency for such duties of some of the officers who fill the post. His Honor recently learnt with some surprise that they were not subjected to any examination, and he had reason to believe that some of them had not sufficient knowledge of the language and character of the documents with which they habitually deal. Indeed, His Honor rather thinks that one or two of them are gentlemen who have failed in, or not passed examinations in other departments. The Lieutenant-Governor has lately insisted on such an examination as shall secure that these registration officers really have the knowledge essential to their functions. That test will be rigorously insisted on, and His Honor trusts that we shall soon feel a well-founded confidence that all these officers are competent for the duties for which they are appointed. It will be necessary to arrange that another officer is to do the duty of registration while the special sub-registrars are absent on inspection duty.

10. What the Lieutenant-Governor has seen in his tours of some registration offices, has impressed him with the fear that there is, in some instances, too great a disposition on the part of sub-registrars to consider themselves a sort of "*Hakims*," whose chief duty is to sit aloft and preside without doing much in the way of examining documents and performing the actual executive work of their offices, that being left to "*omlahs*." His Honor thinks that this is quite a mistake. A sub-registrar's office conducted on such principles, is the next thing to a sinecure, with little real work. His Honor considers that, as a rule, separate registration officers should do all work themselves, except the merest copying, while small registrars with little work may do the copying as well.

11. The Lieutenant-Governor is glad to see that the Inspector-General has given fair scope to the experiments lately tried in regard to the change in the mode of remunerating registration officers. His Honor cannot see that a man paid wholly or in part by fees is likely

to be less zealous and upright than one paid by a fixed salary; and on the other hand, in a department to which the Government desires especially to encourage people to resort, His Honor thinks our officers are much more likely to accommodate themselves to the convenience of the public when they get something by it than when they are mere salaried officers, with nothing but additional trouble to get by civility and nothing to lose by incivility.

12. The above remarks bring the Lieutenant-Governor to the expression of an entire difference from the opinion which some may take to be expressed by the Inspector-General in his 17th paragraph, viz., that registration in Bengal has reached its full development, and is not likely much to exceed in ordinary years about a quarter of a million registrations. It may be that we approach a general registration of all transfers of immovable property under the compulsory condition of the Act. His Honor is not prepared to give an opinion on that. Leases are certainly not yet universally registered, not even those which are compulsory. And as regards the optional registration of ordinary money and such like obligations and contracts, it seems to His Honor that we have as yet hardly tapped that immense stratum of work. Optional though it be, the Lieutenant-Governor thinks that our great object should be to give such facilities that people will resort to a public office for the attestation of their agreements, so that regarding the fact of the agreement there may not be future doubt, question, or litigation.

Now, His Honor observes that the total number of registrations, other than those of immovable property, was but 31,762 in the past year, and has not averaged more than about that number. Seeing the enormous number of transactions that must necessarily take place in a population of 65 millions, almost every man of whom has independent transactions, as a borrower, a lender, or an obligor or obligee of some sort, it is evident that the number stated is a mere drop in the ocean as compared to the whole transactions of the people. It is only just to the Inspector-General to observe that his expressions regarding the full development of registration in Bengal are qualified by the term "with our existing agency." That is just what it is; our agency does not touch the mass of the transactions of the country, and the Lieutenant-Governor would make the agency sufficient.

13. It was, then, to meet the great absence of popular registration which the figures above quoted show, that His Honor has wished to increase the number of registration officers by the appointment of the registrars called rural, under the system detailed in other papers and generally explained by the Inspector-General. This system has not been very readily accepted by those whose ideas were confined to salaried registrars presiding in a dignified way over their offices, and who think that registration and most other privileges may be properly confined to those who can afford to pay lawyers for drawing long legal documents at the places where men of that craft congregate. But His Honor does not think we need be discouraged by the opinions of some existing sub-registrars, who naturally object to taking grist from their mills, or of some Magistrates who have not tried the system, because they think that one official sub-registrar is quite enough if he is willing to take the fees and do registration in the odds and ends of

his time among the many other things he must do for a population of half a million to a million people in a thousand or fifteen hundred square miles of country. The Lieutenant-Governor hopes that the Inspector-General will persevere and try the system fairly. It will take time; but if well worked, His Honor does not see why the objects of such a system should not in the end be worked out, and the number of optional registrations increased from scanty tens of thousands to hundreds of thousands.

14. The Lieutenant-Governor is glad to see that the Inspector-General has tried this system in the eastern districts where it is certainly much wanted, and hopes he will not forget one object which His Honor has especially impressed upon him, viz., that among the great Mahomedan populations of Central, Northern, and Eastern Bengal, registrars should be appointed who, with the official stamp, may take the place of cazees for purposes of social registration. We may thus surmount the alleged difficulty in the Mahomedan law, which is said to require the appointment of such officers by the ruling powers. With reference to these and other sub-registrars, the Lieutenant-Governor understands that the Inspector-General has accepted the necessity of recognizing registration offices where the registers, &c., are not kept in English, and consequently of translating the forms, rules, &c., into the vernacular languages.

15. With respect to leases, that Lieutenant-Governor observes that the registration of perpetual leases at the rate of about 50,000 per annum no doubt points to a great system of sub-infeudation. But the great prevalence of small transactions of this kind seems to be peculiar to a particular tract of country, viz., the maritime districts of Central and Eastern Bengal. Taking a portion of the 24-Pergunnahs and Nuddea, and the whole of Jessore, Backergunge, Fureedpore, Noakhally, and Chittagong, it may be said that about four-fifths of the whole number of perpetual leases are registered in this tract. Chittagong is a country of small landed proprietors, and the return seems to show that these small proprietors sub-infeudate to proprietors smaller still. In this district there seems to be about one such transaction to every 18 or 20 families in each year; but it is a curious circumstance that in Sylhet, the other eastern district of small proprietors, there are scarcely any such leases. In the other districts just mentioned where most of the zemindaree rights are in the hands of large proprietors, the frequency of perpetual leases and comparatively small number of temporary leases registered seem to indicate the creation of many ryots' tenures at fixed rates, in addition to the many which already exist; and it is otherwise known that there is much tendency in that direction in those districts. This peculiarity seems to concur with other peculiarities of the population of the same tract of country. The criminal reports speak of the hot temper and somewhat pugnacious courage of the people of those parts, and both in their social relations and in their religious tendencies they seem to show a certain independence of character. It would be very interesting, as well as politically important, if we could trace the sources, limits, and tendencies of these ethnical peculiarities. The Lieutenant-Governor does not know that any explanation has ever been suggested, at least he has never heard of any. It is certain that the people of these districts are in many respects

different, more independent, and more difficult to manage than those of other parts of Bengal. Their peculiarities are in no degree shared by the people of the district north of the lower Ganges, who are still more largely Mahomedan, so their peculiarities cannot be set down to that religion. It is probably a happy circumstance that the more general diffusion of permanent property is gradually bringing to bear that conservative influence on the hitherto turbulent populations of the Bengal littoral.

16. As regards the registration of leases for terms exceeding one year, the considerations set forth in the Inspector-General's 21st and 22nd paragraphs raise a question of much difficulty and importance which cannot be decided in reviewing an annual report. Meantime, the Lieutenant-Governor may say that he would not alter the existing practice without strong ground for doing so. On the one hand, there seems to be no doubt that many leases are given which are not legally valid and not enforceable by process of law; and His Honor believes that, as in the instance quoted by the Inspector-General from Mr. Alexander's report, it is not unfrequent that both parties to farming leases know it to be so, and deliberately abstain from legally binding themselves. On the other hand, many officers seem to apprehend on strong grounds that unregistered leases for terms would be used as instruments of oppression and fraud, and the Lieutenant-Governor thinks that if they are to be binding they should be registered. The fact is that most ryots, whether they have or have not occupancy rights, hold from year to year as regards the rent, and when the rent is fixed for a term, it is fixed in well administered estates and ought to be so in all for a considerable term. The subject is noted for full consideration.

17. In connection with this subject the Lieutenant-Governor would like to have a fuller report on the peculiarities of the transaction in Chumparun, where there are such enormous oscillations of registration. It was explained last year that the variations occurred in very numerous transactions between indigo planters and ryots, which were in one year registered in many thousands as contracts for delivery of indigo, in another year as leases, while in an intermediate year they dropped to a very small number, and in the last year amounted to several thousands under the head of leases. The column for the other form of contract is now almost blank. The Lieutenant-Governor wishes to have a special report on this subject. He would like to know the character and term of the bulk of the 12,000 or 14,000 contracts for delivery of indigo executed in 1868-69 in the Chumparun district, and the cause of the subsequent change to rent contracts.

In connection with this subject, His Honor would like to know in what districts indigo contracts are registered in large numbers; under what head they come; what is their general character; and what are the terms for which the obligations usually run. His Honor lately found that in one district ten years' contracts were common, and he would like to know if this is often the case.

18. The facts stated in the 24th paragraph of the report do seem to give strong grounds for consideration in connection with the working of the Stamp Act, as checking the execution and registration of written documents. An extract will be sent to the Revenue Department, and the observations of the Board of Revenue will be invited.

19. The increasing registration of wills, referred to in the Inspector-General's 22nd and 37th paragraphs, points to a revolution in the ancient property laws of India, which is gradually being introduced by our doctrine of freedom of testamentary disposition. As the law provides for the disposition of such documents in sealed covers, we must do what we can to make them secure, and after the instances of failure recited by the Inspector-General, he should consider and submit the measures he proposes to adopt.

20. With reference to the Registrar-General's 28th paragraph, the Lieutenant-Governor does not wish him to attempt at present to carry forward any surplus to the credit of the Registration Department. The fact is, that while great part of the work is done by officers of the general administration, whose time is *pro tanto* taken from other matters, and the department is to a great degree housed, and otherwise assisted by the general departments, any statement of profit must be very fallacious; and even if it were not so, and it were permitted to carry over profit, he must remember that the department was made over by the Government of India to the provincial services as a minus quantity to the extent of Rs. 60,430 per annum, that sum being docked from our general grant on account of expected registration profits. To claim a credit in the provincial treasury he would have to calculate only annual profit in excess of Rs. 60,430. Still His Honor has said that he does not wish to make a profit of the department, and the successful financial results of the year seem to justify expenditure on any improvements which are found to be necessary. In paragraph 28 the printing and stationery charges are put at Rs. 19,000. In Appendix VIII. only Rs. 9,000, the cost of printing, is shown. It is explained that as the charges on account of stationery are borne by the Government of India, they are not shown in the statement there given.

21. It seems to the Lieutenant-Governor that the moderate increase of charge on documents for large amounts referred to in paragraph 29 of the report has worked fairly and well, while the charges for small transactions are not immoderate, a large proportion being only eight annas. If the rural officers succeed in obtaining a very large number of registrations, we may possibly register cheaper still.

22. The number of searches during the year is stated in paragraph 34 to have been 9,265. The number is not large, but as our registration becomes a more complete record of burdens on immoveable property, this use of the records will no doubt increase.

23. Efforts should be made to get the balance due from the civil courts, which the Inspector-General states in paragraph 35 to amount to Rs. 50,668.

24. Referring to the remarks made in paragraph 36, on the subject of the Persianized Oordoo in which documents are written in Behar, His Honor would never wish to interfere in the Registration Department with the language used; it is our duty only to attest documents, not to meddle with their contents. We only fairly charge a copying fee when they are of inordinate length; but if people choose to use technical and foreign law language, that is nothing to the Registration Department. On this subject His Honor has noticed a singular state of things in Behar which he had not met with elsewhere, viz., that many documents registered are in the common Hindue character of the

country, and yet just as much in foreign legal language as those in the Persian character.

25. As regards the subordinate establishments of registration offices, the Lieutenant-Governor thinks that in this, as in some other departments, there is too great a gulf between the head of the office and the next man, and not a sufficient gradation admitting of promotion. It seems to His Honor that we have sometimes a gentleman on Rs. 200 per mensem who is good enough to preside over the office, and an intelligent clerk and assistant on Rs. 15, who really does the work. If an assistant is really required, the Lieutenant-Governor would rather have a registrar on Rs. 150 and a clerk-assistant on Rs. 50 or Rs. 60.

The Lieutenant-Governor is inclined to think that copyists paid for work done would be more effective than those paid by salaries and bound to credit the fees to Government.

26. In paragraph 45 the Inspector-General comments on the arrears and mismanagement of the following offices: Burrisal, Ferozepore, Dukhin Shahbaspore, Jungipore, Jehanabad. The Lieutenant-Governor desires the Inspector-General to report if the faults are not speedily cured, in which case due measures will be taken to provide efficient men.

* * * * *

RESOLUTION ON THE ANNUAL FOREST
REPORT FOR 1871-72.

Resolution on the Annual Forest Report for 1871-72.

Dated Calcutta, the 26th November 1872.

RESOLUTION—By the Government of Bengal, Revenue Department.

READ—

The Conservator of Forests' annual report for the year 1871-72.

1. The Government forests of Bengal are confined, almost entirely, to the Cooch Behar and Assam divisions, to the Cachar district and the Chittagong Hill Tracts, and to the Sunderbunds. There are a very few small patches of scrub jungle belonging to Government in the other parts of Bengal; and there are the remains of fine forests in some of the Tributary States of Chota Nagpore and Orissa; but so far as existing forests or sources of timber supply are concerned, the forests of Bengal are confined to the tracts first mentioned. Notwithstanding the fact that the forests of Bengal are confined to its eastern and north-eastern frontier, and to a small patch on its sea-face, enquiries during the past year have made it tolerably clear that only a comparatively small tract under this Government really suffers much from the want of firewood, or of such timbers as the common ranks of the natives of India usually use. In the Patna, Shahabad, Gya, and Sarun districts of Behar only, does it appear that the people are really badly off for firewood and petty timbers. Western Bengal is supplied partly from the Sunderbunds, and partly from the high lands to its west. The southern districts of Central Bengal draw ample supplies of cheap wood from the Sunderbunds. In the city of Calcutta firewood is probably cheaper than in any large town of India; a short system of rivers and canals brings the products of the Sunderbunds to several parts of Calcutta and its environs. To the northern districts of Central Bengal, bamboos and timber are brought by river from the sub-Himalayan forests. Eastern Bengal is supplied by water from the Sunderbunds, from the frontier jungles, and from occasional private forests scattered over the country. Parts of Behar alone are in great want of some fresh supply of firewood and petty timbers; the rest of Behar is supplied from the Nepal and sub-Himalayan forests. Orissa has plenty of forest on the hills to its west, as well as a fringe of jungle on its sea-face. The open country of Chota Nagpore, Cooch Behar, and Assam, is all more or less surrounded by, or interspersed with, forest or jungle. One somewhat remarkable fact came out last year regarding the mango groves and timber supply of Behar. The opium agency consumes annually some hundreds of tons of mango wood for its opium chests; yet the manager of the largest estate in Tirhoot thought it necessary to put a clause in his tenants' leases to prevent their planting new mango groves, because there were already so many groves, and land under groves pays such low rents.

The supply of large timber for all Bengal comes mainly from the sâl forests of Nepal and from the teak forests of Burmah. The former is brought by the Ghogra and Ganges rivers to every district in the Ganges delta; the latter comes by sea to Chittagong and Calcutta. In reality there is little need among ordinary rural districts for large timbers, which are wanted only by the Government departments,

• NOTE.—The Conservator's present report says (paragraph 33): "Markets are all supplied more cheaply from Nepal and by sea than can be done from the Government forests." See also appendix G to the report.

by the railways in large towns, and by boat-builders on the banks of the Ganges. To all these consumers foreign* timber is brought by water. Timber from Bhutan and the eastern Himalayas has yet hardly come into competition with the Nepal sâl in the Dacca markets; some few timbers are brought down by river from the Chittagong Hill Tracts to the seaboard, and the canoes (dug-outs, or hollowed trees) used on all the rivers and streams of Bengal, are generally made in the jungles on the banks of some stream and then floated down to wherever they are wanted. This is specially the case in Upper Assam.

The results of the enquiries of the year regarding the other products of Bengal forests have not been very clear or satisfactory. This much, however, we know, that a large amount of India-rubber comes to the market from the forests of Assam, Cachar, and Cooch Behar, and yields a fair revenue to Government; the wild silk of Assam also contributes to the Government treasury in the form of revenue paid for the trees on which the worms feed; lac and gums are largely collected in the private forests of Midnapore, Chota Nagpore, and Orissa for the Calcutta market.

2. Turning now to the work done by the Forest Department in Bengal during the year 1871-72, the Lieutenant-Governor will proceed to review the Conservator's report and the transactions of the year under the following heads, namely—

Cooch Behar forests.	|	Private forests.
Assam forests.		Plantation work.
Eastern Bengal forests.		Financial results.

3. The forest work of this division is still directly under the

Cooch Behar forests. Conservator of Forests, and has not yet been placed under the direction of

the Divisional Commissioner, as has been the case in Assam, Chittagong, and *practically* in Dacca also. Forest rules for the territory of British Sikkim were approved by the Government of India and published in 1866. But the new Bengal forest rules of 1871 have not yet taken effect in the Cooch Behar division. The Government forests in this division were stated in last year's review to be—

	Square miles.		
Sikkim temperate forests	17
Darjeeling terai	42
Annexed Bhutan Dooars...	740

The present report does not state what the Government forest area in Cooch Behar really is; and the Lieutenant-Governor would ask that next year's report may state, as precisely as can be done, the area of Government forest in each forest district, and the rules or orders under

which those areas are administered. In an appendix to the present report there is a memorandum by the Assistant Conservator, giving an account of twenty different forest tracts in the Cooch Behar division. Mr. James appears to have examined all the forests of his division pretty closely, and to know something about them all in an unprofessional, unscientific sort of way. The forests of the Darjeeling terai and of the Sikkim hills must certainly be kept as Government forests. The only forests in the annexed Bhutan Dooars which would seem, from Mr. James' description, likely to repay careful treatment and working are the Mooraghat forests (29,000 acres) and parts of the great Buxa forests (103,000 acres). Nothing was done during the year to conserve or improve the condition of these forests, except that timber felling within their borders was entirely, or almost entirely, stopped. Some work was done in verifying the stocks of felled timber and bringing them as far as possible into convenient depôts. Successful effort was also made to improve the rubber collected by the Forest Department, and to send it to market in a purer and more valuable state than heretofore. An attempt was made to get felled logs out of the forests and down to market through a contractor; but Government money was advanced too freely, the deed of contract was loosely drawn, the work was not supervised, and Government has unfortunately lost some thousands of rupees. The Lieutenant-Governor issued special orders that efforts should be made this season to clear off a part at least of the old timber stocks (338,053 cubic feet in all) in the Cooch Behar division. Most of this timber was cut some years ago by the forest officers, and has been left in more or less inaccessible places ever since; much of it is sâl, which is difficult of removal by water. All these timber stocks will probably now come into use in the Northern Bengal Railway.

The absence of trained forest officers does, as pointed out by the Conservator, to some extent account for the failure to do any proper forest work last year in the Cooch Behar division. The Lieutenant-Governor hopes that this year the forest officers, whether under the Commissioner's orders, or acting under his advice, may take in hand the conservancy of at least one (perhaps the Mooraghat) reserve; that they may clear off the old timber stocks and develop the rubber revenue. The failure of the Cooch Behar forest division to supply timber to the Government depôts at Dinagepore and Purneah received very unfavorable notice during the year.

4. Before the working season of 1871-72, the forest officers

and the forest work of Assam were placed definitely under the Commissioner of the division. A small establishment for the management of the "open" Government forests was attached to the Deputy Commissioner of each forest district, and the forest officers were directed to confine themselves, under the Commissioner's orders, to selecting and setting in order the reserves, and to conducting certain experimental timber operations on the rivers of Upper Assam. The results of the change of system are not noticed in the present reports. In future years the Assam, Chittagong, and Cooch Behar forest officers, will be required to submit their reports through the Divisional Commissioners, who will forward them with their remarks for incorporation with the Bengal Forest Report.

The forest officers selected, reported upon certain "reserves" in the Kamroop sál forests and on the rivers of Upper Assam. The Commissioner of the division has not yet, it would appear, come to a decision regarding these proposed reserves. It is not clear whether the experimental timber operations on the Debro, Dehing, and Dhunsiri rivers appear to have been carried to any practical conclusion. 565 logs have, it seems, been dragged to depôts on the banks of the rivers, at a cost of 4 annas per cubic foot at the depôt; for the logs at one of the three depôts there will probably be a demand. But the present report does not state what price the logs are likely to fetch; whether any or all of them will float; who are likely to be the purchasers. Form No. 21 (page 48) gives, indeed, the kinds of timber brought to the depôts, but does not state which of these eleven kinds of timber is good for tea boxes, for building, or for canoes; nor does the statement show how far the five station depôts are from any market. A report has recently been received from the Commissioner showing that the 50 sál logs out of 150 felled as an experiment in the Kamroop Dooars, have been brought into Gowhaty at a cost of about 6 annas per cubic foot, and were eagerly bought up at auction, fetching about 15 annas per cubic foot. Next year's report should supply this information, together with full particulars of the results of the sál felling in the Kamroop Dooars. The real value of the woods of the Upper Assam forests, either for local use or for export, has yet to be ascertained.

The question of the India-rubber revenue and its administration is much complicated by the neighbourhood of independent hill races; much of the rubber on which our revenue farmers take duty used to come from beyond the line to which our regular civil administration extends; speculators had begun to deal with these tribes; and there seemed to be some risk of political difficulty. The whole matter was reported to the Government of India. Political explanations will, it is hoped, be prevented by the arrangements which have been made; but there will perhaps be some diminution of the rubber revenue, though probably no reduction in the amount of rubber produced.

5. In the Dacca division the Cachar forests are still managed, and the revenues at the Sealtokghat are collected by the Deputy Commissioner,

after the old system. Much of the forest produce comes from the Lushai tracts, with the inhabitants of which complications must be avoided. The Commissioner of the division will be asked to clear up any doubts which may exist (paragraph 14 of the Conservator's report) regarding Government forest rights in Sylhet.

6. The Forest Department in Chittagong have been employed during the year in collecting tolls on forest produce coming down the rivers from the Chittagong hill tracts. But the forest officers appear to have gone beyond the orders of Government, and to have instituted a system of sending people up into the forests with licenses to cut timber and work their will over tracts which the Deputy Commissioner had leased in the Revenue Department. The two sets of lease-holders therefore clashed; the forest officer with his superior at Calcutta did not seem to be qualified to have the full control over forest transactions on a distant border, more especially when the only forest work to be done was the revenue work, and not professional conservancy. Moreover it

appeared that the tracts which had been declared to be open Government forests stretched away to the Lushai high lands, where our troops were fighting last season. Accordingly, the Commissioner of the division was vested with the powers of Conservator of Forests in the Chittagong division. The forest revenue will not suffer; some real conservancy operations may in course of time be undertaken; and meanwhile the peace of the border will not be endangered.

7. The only noteworthy proceedings of the year on private forests

Private forests.

were the attempt to carry logs down from the Surunda Rajah's sâl forests, and the beginning made by the Superintendent of the Orissa Tributary Mehals towards a rough kind of forest conservancy in the Gurjhat States. Last year's review noticed the inspection report on the Surunda sâl forests, and permitted the Assistant Conservator to make an experiment of bringing sâl logs down the Brahmince river to Orissa. The present report (paragraph 17) mentions that the experiment was to be made with fifty logs. Subsequent accounts have shown that the forest officer found that he could not hope to get fifty logs to the river, so he began his experiment with fifteen logs out of the fifty he had cut. Out of the fifteen logs started, ten were lost in the rapids; after some weeks' work, occasional porterages, and considerable expenditure, five logs were got down almost to the plains. The forest officer and his men got, more or less, fever, and the result was to leave great doubt whether, in the present state of the river and the country, the Surunda sâl forests could be worked to any advantage.

The Superintendent of the Orissa Tributary States issued simple conservancy instructions to the several chiefs, and in time the waste of timber will perhaps be somewhat checked.

From the great tracts of the Chota Nagpore division, covered with stunted sâl, a good deal of small timber is brought to market as the Lieutenant-Governor observed, at Hazareebagh; but it seems doubtful if any large timber is available at a remunerative cost, and whether time would make the small timber large.

8. The present report does not give a very favourable account of plantation work, which seems to have received hitherto but scanty attention.

Plantations. It seems quite incomprehensible how a Government forest plantation of 42 acres, established in 1866, should have been forgotten or lost for several years, and should have been "discovered this season" (paragraph 39 of the report), when its trees were found to average 11½ feet high. All its trees seem to be foreign trees, raised from American or European seed. It is clear that no record has been kept of the Bengal plantations, or there could not be a doubt (see paragraph 44 of the report), whether the teak trees of the only good plantation we have were raised from transplanted seedlings, or from seedlings raised where the seed was planted. The Lieutenant-Governor hopes that for the future all Bengal officers engaged in, or connected with plantation works, will study and follow the practice and suggestions set forth in the interesting papers recently circulated regarding Punjab plantations.

The Lieutenant-Governor visited the Rungbool and the Bamunpokree plantations. He is disposed to agree with Dr. G. King, that it

was a mistake to clear the Rungbool hill near Darjeeling of a fine natural forest, the logs of which now rot on the ground, and then to plant, and renew annually, stunted and unhealthy seedlings collected in the forests. The small plantations of teak at Bamunpokree in the terai, however, seemed to Mr. Campbell to be so far very successful; the young teak trees grow well, they are close together; the ground is thoroughly shaded and kept moist; and the young trees were as good as we could wish. The whole question of plantations in Behar, in Assam, and in the eastern districts has still to be taken up. In Behar, a plantation in connection with the new canal may be possible. In Assam, and other eastern districts, young teak grows very rapidly. The Punjab experience clearly shows that a large plantation in one block pays best, and that a long line of plantation does not ordinarily pay. One of the young officers of the Forest Department has been sent for six months to learn plantation work on the Punjab plantations; and the Lieutenant-Governor hopes that an extension of teak plantation, and perhaps of mahogany and some other plantation, may be possible during the current year. The plantation at Shillong will have great advantages in cheap land, and ample rainfall; and if its supervision can be joined to the model farm, or to the cinchona garden work, the plantation ought to be a success. The attention of the Commissioner of Assam will be specially invited to the desirability of pushing on this plantation.

9 The cost of the Forest Department during the year was Rs. 1,08,000, and the income it realized was Rs. 78,500; so that the deficit on the year's work was Rs. 29,500. Out of the receipts, Rs. 47,500, or much more than half, was realized from forest tolls in the Chittagong hill tracts, which gave rise to much complication. The forest collections by civil officers, indeed, more than cover the deficit; but then these collections would have made just the same if there had been no Forest Department. Next year may, perhaps, show a different balance sheet, because the Railway Department may take over the timber which has been cut. But in ordinary years, unless we make more revenue than we can expect on the system hitherto followed, the Bengal Forest Department can hardly hope to pay its way, so long as the timber market is so fully supplied with foreign timber. Still, if real conservancy or plantation work were going on, the benefit would be felt by the next generation, and the Lieutenant-Governor would not grudge the annual forest deficit. But at present the Lieutenant-Governor is not satisfied that any sufficient result is secured by the Forest Department. Doubtless, the absence of trained officers has much to do with this absence of results. But the Lieutenant-Governor hopes that within the next two years, the administration of the eastern and north-eastern forests may be put on a reasonable and firm footing; that some systematic planting may be begun in various parts of the country, and that some approach may be made to a solution of the questions on which the ultimate success of a forest system in Bengal depends.

As regards a supply of timber from existing sources, in addition to making the most of our forests in the Bhutan Doours and Assam, it seems to the Lieutenant-Governor that the main question is, whether timber may not be got in large quantities from the Eastern Himalayas as it has been got from the Western Himalayas. No doubt deodar is not to be had; but the Lieutenant-Governor is given to understand that

forests of the beautiful silver fir, of which specimens may be seen at Darjeeling, exist in the interior of the Sikkim hills; and if any pine or other woods, which, with or without creosoting can be used for railway sleepers and other purposes, exist in the great Himalayan range, from Darjeeling to the extreme east of Assam, and can be brought down the many rivers, self-interest may bring the tribes into much closer commercial relations with us.

10. As respects plantations, the two questions which a scientific man should devote himself to solve are—*first*, whether sál can be made to grow large; and *second* whether teak will grow large in those provinces.

11. It may be said that the whole country, wherever it is in the least degree raised above water level, is one mass of natural sál. Not only does this tree abound all along the foot of the hills of the northern and eastern frontiers, but throughout the western borders of Bengal and Behar; the traces of it are everywhere apparent, and the Chota Nagpore division, and Orissa Tributary Mehals, from 50,000 or 60,000 square miles, may be said to be one great sál forest, partially interrupted by cultivation. The question is, whether its stunted condition is due to soil and climate, or to circumstances which the Lieutenant-Governor has generally noticed, that what appear to be promising young sál forests are only after-growths from the stools of previous trees. There seems to be very great difficulty in planting out young sál, or getting it to grow from seed.

On the other hand, teak, though it is believed nowhere indigenous, grows with the utmost facility from seed, and also bears transplanting with perfect ease. It grows as a young tree with extreme rapidity in all those provinces. The question is, whether between the limit of the torrid zone and the foot of the Himalayas and Vindhyas, say from latitude 23° to 28°, it will grow into large timber.

There is also much reason to believe that mahogany may be profitably grown. It has already grown into large timber in Calcutta, though most of our large trees unfortunately fell before the cyclones of late years.

STATISTICS OF GANGES-BORNE TRADE,
JANUARY TO JUNE 1872.

Statistics of Ganges-borne Trade, January to June 1872.

Dated Calcutta, the 18th November 1872.

RESOLUTION—By the Government of Bengal, Revenue Department.

THE desirability of obtaining some statistics of the Ganges-borne trade was forced upon the Lieutenant-Governor's notice last year when he was inquiring into the Bengal salt revenue and the sources from which the provinces of Behar and Bengal draw their salt supplies. The toll-collecting station at Jungypore at the head of the Bhagiruthee, and the toll stations on the Calcutta and Eastern Canals, register a great deal of the river traffic of Bengal; but comparatively little is known of the traffic between Eastern or Northern Bengal and the districts of Behar or the North-Western Provinces. In August 1871 the Supreme Government asked the Lieutenant-Governor to consider whether the Ganges trade could not be registered at some central station, and after consulting the Commissioners of the Gangetic divisions, it was decided that Sahebgunge on the Ganges would be the best place for such registration. Sahebgunge is situate below the point where the last or nearly the last of all the great affluents have joined the Ganges, and it is above the point where the most westerly of the Gangetic channels parts from the main stream and starts for the sea. The whole of the North-Western Provinces and Oude river traffic, the traffic of the two Gunduks, the Ghogra, the Soane, and the Kosce, must all pass Sahebgunge. The Mahanuddee, the Atrai, and the other rivers of Dinagepore, Maldah, and Rajshahye, do indeed join the Ganges below Sahebgunge, but then their mouths are below the opening of the Bhagiruthee channel, and any registering station that would catch their traffic must miss all the traffic which goes down the Bhagiruthee to Calcutta. Sahebgunge, again, has special local advantages; the channel narrows at the Sahebgunge headland, and the deep stream of the Ganges is, and has for some time been, close under the town and station of Sahebgunge. It was very undesirable to have more registering stations than were absolutely necessary that the trade might not be put to inconvenience. Accordingly, Sahebgunge was chosen as the only place

* Registering officer ..	Rs.
2 Boats, at Rs. 30 each	60
2 Peons „ „ 5 „	10
Total	150

for registering the Ganges traffic, and a small establishment* costing Rs. 150 per mensem was sanctioned and placed under the orders of Mr. Willmot, Assistant Commissioner of the Rajmehal sub-division of the Sonthal

Pergunnahs. Monthly statements of the cargo carried up and down stream were sent in, and the results of the statements for the first six months of 1872 are abstracted in the appended statements. It must be understood, however, that as no inquisitorial proceedings were adopted,

and the returns were only made up from the general statements of persons in charge of each boat, they had no pretence to exact accuracy; and even their rough accuracy is doubtful. Probably the quantities given are all much below the truth, but they have a great deal of comparative value.

2. The first or dry half of the year is the least favorable for river traffic. The water is much lower and the winds are much less favorable; many or most of the affluents of the Ganges are too low for navigation. Moreover, many of the chief river marts are separated from the deep channel by many hundred yards of sandbank. These sandbanks often disappear as fast as they form, but still they do very materially affect the river traffic: for instance, the Railway Company constructed a siding down to the river-side in the mercantile quarter of Patna city; for some time this siding was successful, and attracted a good deal of trade; but now during the dry weather there is more than a quarter of a mile of sandbank between the river-side railway station and the nearest point to which cargo boats can come. During the rains, when the river is full, all the marts and landing-places are accessible. Scores, or even hundreds, of streams from both sides of the Ganges become navigable and send their produce on to the river, and there is a nearly uniform south-east wind blowing up the river and enabling sailing boats to make head against the strong freshes. During the months of August and September 1872, when the Lieutenant-Governor's yacht was steaming up-stream, it frequently happened that the large Dacca boats (of 2,000 or 2,500 maunds burthen) with their three huge square sails almost kept pace with the yacht by dint of keeping to the slack water and making the most of the favourable breeze. In this respect the Ganges is a great contrast to the upper Brahmapootra, where the Lieutenant-Governor's yacht after passing the Garrow Hills sometimes steamed on day after day without passing a single native cargo boat. The figures of the Ganges trade for the first half of the year therefore give no fair criterion of what the whole year's traffic may turn out to be; but the results of the first half-year's returns are published to draw attention to the matter, and in the hope that further information regarding the river trade may be furnished by persons interested, or by officers who serve in river-side district.

3. Regarding the Ganges-borne traffic and Ganges boats, there are at present available the annual report of the officers in charge of the toll-collecting station of Jungypore at the head of the Bhagiruthee. Mr. A. R. Stewart, the present Collector of Tolls, has been for many years at Jungypore, and is thoroughly conversant with the river trade and its changes; but his recent reports do not give much information of a general kind about the Ganges trade. Colonel G. A. Searle, in his report upon the Sahebgunge canal project, gives the following particulars of the Ganges trade :—

VI. There are two classes of boats plying on the rivers between Calcutta and Sahebgunge—flat-bottomed boats from the upper provinces, such as *cathras*, *mudgers*, and *voolcks*, constructed specially for the navigation of shallow rivers; and round-bottomed boats, chiefly from the Dacca district, adapted only for deep rivers. The finest of these are the Dacca *pubears*. These boats are sometimes 100 tons burthen, and draw 6 feet of water.

The largest boats are from 60 to 75 feet long, and 15 to 25 feet broad.

The rivers are also navigated by steamers, the largest of which are 260 feet over all in length, 68 feet broad over the paddle-boxes, with a minimum draught of 5 feet.

A *Dacca pubear* costs, when new, about Re. 1-8 per maund burthen for the hull alone, and about 8 annas per maund for sails, thatching, spars, ropes, &c.

The average value of boats on the river is not, perhaps, more than from 8 to 12 annas per maund for the hull, and about 2½ annas for fittings.

VII. These boats are generally laden on the voyage down with country produce, and on the return trip with salt, iron, coal, &c. Under ordinary circumstances, the crew of a large boat consists of one man per 100 maunds burthen up to 1,000 maunds, and after that one man for every 200 maunds. On long voyages extra men are sometimes carried to provide against the contingencies of sickness, &c., and most large boats carry one or two cooks.

There are several ways of paying the crew; the most common is by shares. Of the total earnings, after deducting all expenses, the cost of feeding the crew, and the like, the boat owner gets one-third of the balance, the remaining two-thirds are divided among the crew in the following manner:—

Each manjee gets one share, the head manjee gets a share and a half, one share goes to the owner of the brass utensils, and one share to the owner of the *dinghy*.

Under this arrangement the boat owner repairs all damages. In some cases the head manjee pays the boatmen a monthly sum, usually from Rs. 1-8 to Rs. 2 per hundred maunds burthen, when he makes his own arrangements with the crew. It sometimes happens that the boat owner is the trader as well, and he appoints a superior kind of manjee as supercargo. This man takes over the goods at a fixed rate and sells them in the best market he can.

After deducting all expenses the merchant gets five-sixteenths of the profit, and also one share per 100 maunds burthen for the boat. Each boatman gets a share, and the head manjee two and a half shares.

4. During the last few months there has been some correspondence regarding the causes which have during the last two years induced the goods traffic of the Gangetic country to desert the East Indian Railway line and take to the river; and it has been stated that the boat traffic is brisker than it used to be, partly* because the channel at the head of the Bhagiruthee has during the last two years

* Note.—Other and perhaps more effectual causes have been mentioned, but they do not bear upon the present subject.

been much deeper than it had formerly been, and partly because the great havoc caused to the river shipping by the cyclone of 1864 has now been nearly made good by the activity of boat-builders during the last five or six years.

5. The total number of boats which passed Sahebgunge during the first six months of 1872 were—

<i>Up traffic.</i>						
Month.				Loaded boats.	Empty boats.	Total.
January	1872	...	...	1,116	553	1,669
February	"	...	...	1,339	444	1,783
March	"	...	...	1,452	426	1,878
April	"	...	...	783	496	1,279
May	"	...	...	1,491	513	2,004
June	"	...	...	1,512	339	1,851
Total				7,693	2,771	10,464
<i>Down traffic.</i>						
January	1872	...	...	1,304	260	1,564
February	"	...	...	1,181	407	1,588
March	"	...	...	1,216	346	1,562
April	"	...	...	1,056	220	1,276
May	"	...	...	761	172	933
June	"	...	...	762	239	1,001
Total				6,280	1,614	7,894

So that more than 18,000 boats, or about 100 per diem, passed Sahebgunge during the half-year. No record was kept to show how often the same boat passed during the season; possibly some of the boats which take short trips passed Sahebgunge several times. No detailed information regarding the ownership of these boats was asked for; but it is believed that cargo boats are built more or less all along the Ganges and on most of its navigable affluents. The largest boats are built in the rivers near, below, and opposite to Dacca and Naraingunge. Ten steamers passed Sahebgunge during the half-year—five each way. The ten trips passed Sahebgunge were made by steamers, all of which belonged to the India General Steam Navigation Company. So far as is known, there is not a native-owned steamer on the river.

6. The total weight of the cargoes passing Sahebgunge during the half-year is shown to have been—

<i>Up-stream traffic.</i>				Total cargo carried in maunds.
Country boats	...	...	1,320,886	
Steamers	...	...	35,738	
				1,356,624
<i>Down-stream traffic.</i>				
Country boats	...	...	2,366,359	
Steamers	...	...	86,446	
				2,452,805
Grand Total	...	...	3,809,429	

7. The steamboat cargo traffic is shown in a separate statement* •

* Appendix No. 5.

† Appendix Nos. 1, 2, 3, 4.

which has been furnished by the Company. The country boat traffic is shown in four statements† statement No. 1 shows the quantities of each class despatched from marts below Sahebgunge; statement No. 2 shows the marts to

which the down-stream goods were consigned; statements Nos. 3 and 4

† Each mart which has received or sent more than 10,000 maunds of goods during the half-year is classed as a considerable mart.

give the same details for the up-stream traffic. The despatches from each considerable† mart are shown separately; despatches from the smaller marts of each tract are shown together. The maundage was entered by the registering officer at the figure given by the boatmen. There seems to be some discrepancy between the totals of goods despatched and received; so far as this is not accounted for by shipments from and to Sahebgunge itself, the discrepancy must point to some error. Goods that are usually measured by the tale have been reduced to maunds, according to a table given in appendix No. 6.

8. The total of goods shipped at places above Sahebgunge during the year was, it has been seen, 1,320,886 maunds, while the up-stream traffic passing Sahebgunge amounted to 2,365,359 maunds. The chief staples of the down-stream river traffic are—

					Maunds.
Wheat	...	...	...	...	97,000
Pulse and gram	...	...	...	...	71,000
Oil-seeds	...	...	...	...	470,000
Sugar	...	...	...	...	163,000
Tobacco	...	...	...	...	49,000
Saltpetre	...	...	...	...	86,000

The bulk of the wheat and pulse exports is shipped at marts in the Monghyr and Bhagulpore districts; very little wheat appears to come down the river from Patna or the North-Western Provinces. The largest shipment of wheat was made from Colgong. Upwards of half the oil-seeds come from places in the Purneah, Monghyr, and Bhagulpore districts; about one-third comes from places in the Patna division, and less than one-sixth from places in the North-Western Provinces. The mart of Revelgunge, in the Sarun district, at the meeting of the Ghogra and the Ganges, is by far the largest place of export for oil-seeds. Jute comes in quantity only from Purneah and the eastern parts of Bhagulpore; but the total bulk of jute passing Sahebgunge is very trifling. Three-quarters of the sugar trade of the Ganges come from the Benares province of North-Western Provinces; the rest comes from Patna and Tirhoot. Tobacco is exported mainly from Tirhoot and Purneah, the sub-Himalayan tracts of these districts being, like the northern tracts of Rungpore and the Cooch Behar country, specially suited for the growth of tobacco. Saltpetre comes chiefly from the Patna division.

The marts to which the greater part of the down-stream traffic is consigned are Calcutta, Maldah, Jeeagunge, and Moorsshedabad, Bhadesur in the Hooghly district, Rampore Beaulah, and Dacca. Calcutta receives almost half of the whole down-stream traffic, comprising nearly all the wheat, saltpetre, other cereals, and timber; Calcutta receives also much more than half the oil-seeds passing Sahebgunge, and most of the remainder of this traffic being consigned to places on the Bhagiruthi probably reaches Calcutta eventually. Nearly all the hides, horns, and gunny bags brought down the river are landed at Sahebgunge; thence most of the hides and horns must be carried to Calcutta by rail. The only considerable up-country produce which

comes down the Ganges for the use of people in Lower Bengal, and not for export by sea, are sugar and perhaps tobacco. Up-country sugar is largely consigned to Maldah (for Dinagepore), to Moorshedabad and Rajshahye.

If the Ganges traffic, as shown in these tables, be compared with the East Indian Railway goods traffic on the main and loop line from places between Allahabad and Sahebgunge, the result is as follows:—

Maunds.			
Total down traffic by East Indian Railway despatched from stations between Allahabad and Sahebgunge during the first six months of 1871	...	...	3,968,264
Total down river traffic, as per these tables, for corresponding half of 1872	...	...	1,320,886

These figures for the railway comprise the local traffic as well as that which goes down country. The only item of down-railway traffic for which figures are at present available is saltpetre, and we find that there came—

Maunds.			
By East Indian Railway in the first six months of 1871...	...	...	87,472
By river in first six months of 1872	...	...	86,812

We know that the total annual export of saltpetre from Calcutta is about 600,000 maunds, every pound of which comes from above Sahebgunge; so that when we have a full year's figures of the Ganges traffic, we shall be able to form some idea of the probable correctness of the statistics collected at Sahebgunge.

9. Turning now to the tables of up-stream traffic (tables 1, 3, and 4), we find that by far the largest item of up-stream traffic is rice. 1,593,284 maunds of rice were carried during the half-year from the districts of Maldah, Dinagepore, Moorshedabad, Rajshahye, and Dacca, up the Ganges to Patna, Revelgunge, Tirhoot, Ghazee-pore, Benares, and Mirzapore. These figures of the rice traffic are so interesting that some of them are worth reproducing here; thus the chief despatches of rice were—

Maunds.			
From places in the Maldah district, whence much of the Dinagepore rice is shipped, about	...	...	630,000
From places in Dinagepore, about	...	...	138,000
" " Moorshedabad	...	...	48,000
" " Rajshahye	...	...	90,000
" " Dacca	...	...	185,000

The chief arrivals of rice were—

At Allahabad and Mirzapore, about	...	...	106,000
" Benares, about	...	...	242,000
" places in the Jounpore and Ghazee-pore districts, about	...	...	440,000
" Revelgunge, about	...	...	162,000
" Patna and Dinapore, about...	...	...	286,000

Thus Lower Bengal sends considerable quantities of food-grains up to Behar and still more to the Benares division of the North-Western Provinces, and helps those thickly-peopled tracts to devote large areas to the production of indigo, opium, and oil-seeds. The quantity of pulse and grain which moves up the river is in bulk about the same as moves down the river. Oil-seeds, sugar, and tobacco, do not appear in the up-stream traffic. Nearly the whole of the up-traffic in metals

is from Calcutta, and more than half the metals is consigned to Patna. The total trade in metals of the half-year past of Sahebgunge was only 27,000 maunds in country boats and 38,600 maunds in steamers.

10. Next to rice, salt is the most bulky article of up-country traffic; 4,28,000 maunds of salt passed up the river, nearly all of which was shipped from Calcutta and its neighbourhood. Barely 2,00,000 maunds of Calcutta salt reaches the North-Western Provinces, and about 3,40,000 maunds are consigned to places in the Patna division. The despatches of salt from Calcutta and its neighbourhood by railway for places above Sahebgunge and below Benares during the first half of 1871 were about 3,03,000 maunds. The river traffic in cotton goods and gunnies is very trifling. The East Indian Railway up-traffic compares with the river trade thus :—

	Maunds.
Railway upward despatches of goods from stations below	
Sahebgunge on the loop line ...	4,150,372
• Total up-stream traffic passing Sahebgunge ...	2,152,805

11. The steamboat traffic for the half-year came to—

35,758 maunds of down traffic.
86,416 " " up traffic.

Seeds and cotton form more than three-quarters of the downward steam freight, while salt and metals make up three-quarters of the upwards steamer traffic. Nearly all the steamer freight is through traffic from Calcutta to Mirzapore, or from Mirzapore and Revelgunge to Calcutta; steamers seem to do little trade between intermediate river stations, and they do not secure any of the large up-country rice trade.

12. While thus reviewing some of the principal features in these returns, the Lieutenant-Governor must reserve all opinion as to their accuracy or otherwise until he shall be in possession of the figures for the second half of the year, during which season the river trade is so much more brisk. There are some features in these returns which throw some doubt on their general accuracy; for instance, the total maundage shown in the returns as passing Sahebgunge gives very little more than 200 maunds for each boat passing Sahebgunge, or 270 maunds for each laden boat. It seems hardly possible that so small an average freight could repay fleets of boats of the size which usually ply upon the Ganges. Again, the difference between the weight of upward and downward freight is much greater than it is on the railway line, or than the difference in the number of laden boats each way would lead us to expect. The steamboat upward freight, however, is more than double the downward freight; and this circumstance would help to confirm the general accuracy of the proportion between the up and down boat traffic registered at Sahebgunge.

13. This Government has also sources of information regarding the river trade of Calcutta and Central Bengal in the returns of the toll collectors of the Calcutta and eastern canals and of the Nuddea rivers. Arrangements will be made for putting the statistics collected on these waterways into a useful shape. The East Indian Railway traffic returns were furnished by the courtesy of the agent; but they are by no means so perfect or complete as could be desired. There seems no reason why

the railways on this side of India should not tabulate and print their traffic statistics in as clear and interesting a shape as the Great Indian Peninsula Railway traffic tables, which are usually available a few weeks after the end of each half-year.

14. When the returns for the whole year are complete, they will be reviewed, and it will then be considered whether the registering establishment at Sahibgunge can be usefully maintained any longer. Meanwhile, a copy of these remarks and of the appended statements will be forwarded to all commissioners, collectors, canal and river-toll officers, sub-divisional officers along the line of the Ganges navigation, and remarks, criticism, or information, will be invited. A copy will also be furnished to the East Indian Railway and Eastern Bengal Railway agencies, in case the traffic department of these railways should be able and willing to offer any remarks on the appended statements.

APPENDIX I.

APPEN

Showing the amount of goods in standard maunds shipped at places above Sahel during the first six

Places of shipment above Sahelgunge.	Rice	Wheat.	Other cereals.	Pulses and gram.	Oil-seeds.	Jute	Cotton	Sugar.	Tobacco.
Cawnpore ... ..	.....	..	..	..	5,175	..	854	135	..
Mirzapore ... ..	.....	..	..	6	..	..	25,189	32	..
Benares ... ..	.....	..	..	770	21,184	..	247	50	..
Bulhry (Jounpore district)	..	300	..	..	..	..	..	39,863	14
Belthora (ditto) ...	..	..	..	590	736	..	..	7,780	..
Ghazepore	425	..	..	74	344	..	106	10,985	10
Monar ... ..	..	..	..	..	2,488	..	..	12,197	..
Balia Ghazepore ...	..	..	..	110	6,577	..	..	23,981	75
Gola Gopalpore (Goruck-pore)	.....	.....	.....	..	8,762	..	..	2,922	..
Small places in the North-Western Provinces ...	150	690	.....	482	24,811	41	2,439	18,351	1,135
Sohnpore ... ..	{	..	..	3,774	1,250	..	..	325	..
Revelgunge } (Saron) ...	..	420	800	1,252	78,932	150	..	2,348	57
Chupra ... ..	..	..	650	470	300	..	..	3,910	..
Gonduck Sahelgunge ...	..	..	..	..	236	..	..	..	..
Durlhunga (Tirhoot) ...	7	130	..	67	7,231	..	..	150	118
Roshra (ditto) ... ..	..	..	..	36	13,130	..	..	996	9,428
Chowra (ditto) ... ..	..	10	..	..	..	..	..	4	..
Dunapore ... ..	..	..	200	610	150	..	..	3,23	175
Patna ... ..	..	2,088	447	4,409	18,911	..	200	4,508	7,254
Burha ... ..	..	1,237	300	13,148	1,518	..	..	1,910	1,170
Billowah ... ..	..	..	..	..	6,468	300	..	9,679	..
Barh ... ..	..	2,689	..	7,978	2,841	..	..	303	262
Mokameh ... ..	..	2,075	.....	5,920	3,301	.....	..	20	..
Small places in the Patna division north of Ganges	336	466	200	251	7,987	..	..	7,856	3,576
Small places in the Patna division south of Ganges	8	695	.....	6,695	6,027	.....	..	6,625	400
Khaseriah (Monghyr) ...	..	9,062	..	1,548	37,152	202	..	382	765
Sruggurh (ditto) ... ..	..	4,245	90	10,815	4,185	..	..	2	..
Monghyr ... ..	..	10,876	2,455	11,351	19,973	.....	..	4	849
Mooreegunge (Bhagulpore) ... ..	..	1,425	..	3	29,211	190	..	5	..
Bhowanipore (Purneah) ...	422	3,190	210	50	5,996	1,810	..	..	1,076
Koosra (ditto) ... ..	..	625	..	..	4,611	1,045	..	..	..
Kanulpore (ditto)	92	325	..	120	4,838	910	..	..	14,702
Caragola (ditto)	6,872	2,850	..	74	7,504	2,954	..	59	4,657
Ranecunge (ditto)	207	..	.....	..	7,706	1,756	200	..	750
Small places in the Purneah district	2,659	343	125	802	15,513	728	.....	1,920	1,191
Bhagulpore ... ..	..	15,046	9,135	3,590	7,337	..	837	878	190
Colong ... ..	..	22,405	5,447	1,137	27,710	150	..	20	50
Balia Sahelgunge	526	10	..	145	33,811	5,303	..	525	1
Sahelgunge	5	1,339	4	138	3,143	40	120	206	30
Small places in the Monghyr district	.....	.....	..	300	2,402	..	775	125	725
Ditto ditto Bhagulpore district ...	331	10,613	1,004	175	27,336	35	.....	1,332	287
Ditto not assigned to any district ... ..	..	4,348	1,525	657	10,470	475	..	3,182	1,312
Totals	12,040	97,372	22,632	74,013	470,424	18,090	31,037	163,543	49,570

D I X 1.

gunge for despatch down the Ganges to places below the registering station
months of 1872.

Spices and pepper.	Miscellaneous vegetable produce.	Shell-lac and other dyes.	Timber.	Brass and brass work.	Other metals.	Salt.	Salpêtre.	Hides.	Horns.	Ghee.	Silk goods.	Cotton goods.	Gunnies.	Miscellaneous.
...	8,885	2,050	...	...	160	...	100	246	13	...	...	...	...	12,183
...	80	...	...	...	2,600	...	...	...	...	...	...	...	...	52,004
300	315	...	...	...	...	...	...	...	...	...	...	...	...	4,275
...	100	...	...	...	800	...	...	...	...	...	...	...	...	63,101
...	4,507	...	...	...	2,911	22	...	...	...	...	...	...	...	10,026
...	229	...	...	...	825	140	...	...	...	201	...	...	...	19,129
62	705	10	...	...	...	...	...	...	...	...	2	...	...	16,082
...	...	...	...	...	...	...	...	...	...	...	...	...	...	31,548
...	100	...	...	...	...	...	...	...	...	...	...	...	...	11,784
64	4,476	...	3	...	4,230	41	5,760	96	...	380	253	21	2,874	66,216
...	...	...	...	...	...	...	15,750	...	...	...	...	...	...	21,399
25	1,219	...	...	...	6	125	225	...	...	288	...	...	...	86,109
7	550	...	...	...	18	...	4,777	...	...	...	...	61	...	4,771
...	860	...	...	...	...	...	11,395	...	...	...	...	...	...	15,101
...	679	...	18,142	...	...	...	6,545	9,907	730	242	...	...	...	44,071
45	982	50	...	...	86	...	602	...	66	1,541	...	...	75	1,800
...	...	...	3,128	...	...	...	...	...	...	...	...	...	...	10
...	11,914	...	...	...	110	300	...	...	...	732	...	...	...	13,922
5,105	43,301	20	...	...	721	7,381	...	...	...	...	...	35	2,075	97,190
...	247	...	...	...	1,000	...	...	...	...	15	...	...	...	19,618
...	1,527	...	...	...	...	700	...	...	...	500	...	2,800	...	21,044
...	90	...	...	...	...	...	...	...	...	30	...	14	...	16,314
...	...	...	...	...	...	...	...	...	...	468	...	...	...	11,874
24	10,688	4	...	...	110	188	15,170	320	23	2,192	...	4	300	49,675
47	1,740	11	...	...	...	...	4,825	493	25	47	...	1	4	28,453
...	1,669	...	...	...	...	...	...	...	...	1,508	...	...	...	52,334
...	...	...	...	...	...	...	...	...	...	165	...	...	...	19,500
765	1,223	...	724	...	1,136	338	729	35	...	2,097	...	...	1,333	55,016
...	290	...	...	...	...	...	...	...	...	1,375	...	21	...	32,523
...	150	...	...	...	...	...	...	...	...	...	...	...	...	12,963
...	68	...	...	...	...	...	5,860	107	...	200	...	...	...	190
35	244	...	8	...	...	...	...	...	...	...	...	...	...	21,325
4,935	460	118	10	137	151	256	...	1,280	133	6	4	78	18,137	53,952
...	...	...	...	...	...	...	...	...	...	495	...	...	...	163
...	4,870	...	2	...	...	...	200	125	18	176	...	...	...	32,042
72	6,384	113	...	495	...	100	...	3	...	19	...	7	180	41,789
...	5,541	...	...	...	...	...	...	...	...	...	...	...	...	615
...	593	...	...	...	...	...	...	...	...	...	...	...	...	21,325
298	593	...	23	22	250	...	1,950	80	...	278	...	...	...	62,508
890	2,197	...	37	65	162	180	1,832	...	...	72	20	276	...	41,820
...	...	...	...	...	...	...	...	...	...	...	...	...	...	11,270
...	735	...	...	...	...	...	...	...	...	90	...	...	3,411	8,563
9	6,278	...	5	...	1,460	...	700	1,388	109	153	...	...	4,592	55,807
40	1,426	...	...	500	523	...	6,992	531	20	107	...	16	3,949	36,073
11,813	125,539	2,452	22,082	1,250	16,851	10,174	886,81	214,60	1,197	13,377	281	537	21,806	1,320,886

APPEN

*Showing the alleged destination of the goods which are carried down the
are expressed in*

DESTINATION.	Rice.	Wheat.	Other cereals.	Pulses and gram.	Oil-seeds.	Jute.	Cotton.	Sugar.	Tobacco.
Rajmahal	118	...	...	...	779	...	56	1,012	405
Neighbouring small places	158	...	...	235	181	...	64	188	90
Maldah	1,610	...	...	5,314	394	...	1,931	41,496	652
Nethpore (Maldah district) .....	...	...	...	151	127	25	80	6,599	...
Havetpore (ditto)	43	5	0	72	...	...	487	5,880	49
Sahebgunge	7,972	30	...	140	15,528	203	...	1,144	12,217
Small places in the Purneah district ..	...	...	...	25	10	...	...	...	...
Small places in the Maldah district ..	733	85	...	412	1,100	...	1,203	8,160	523
Small places in the Bhugopore district ..	...	...	...	108	...	...	...	116	...
Doolan (Moorsheadabad) ..	...	551	...	270	16,572	1,075	...	42,701	11,033
Jumeypore (ditto) ..	...	...	...	48	16,131	...	...	17,238	6,674
Bhagwangola (ditto) ..	36	...	...	...	680	...	13,245	...	...
Jeakunge (ditto) ..	207	850	125	300	30,497	815	...	1,455	1,676
Moorsheadabad .....	...	...	...	350	12,624	40	4,120	2,736	6,128
Small places in Moorsheadabad on the Ganges ..	90	10	...	...	5	...	...	...	151
Ditto ditto on Bhagirathce ..	406	...	...	...	4,125	...	...	980	...
Kooshitea (Nuddea) ..	...	1,070	...	...	12,841	...	...	1,346	160
Small places in the Nuddea district on Bhagirathce ..	...	...	...	70	...	...	...	...	...
Bhadesur (Hooghly) ..	...	4,808	340	8,200	49,517	3,688	...	375	413
Small places in the Hooghly district ..	...	1,094	...	30	3,994	...	...	...	300
Calcutta	2,010	83,921	89,280	44,147	280,135	16,198	...	8,157	7,505
Rampore Baulchah ..	...	250	...	314	4,880	...	...	21,606	579
Small places in the Rayshlye district ..	...	...	200	100	...	...	...	128	52
Small places in the Jessore district ..	...	...	...	...	...	...	...	...	...
Small places between Rajshahyee and Goalundo ..	...	243	...	...	189	...	500	...	...
Small places on the Brahmapooter above Goalundo ... ..	...	100	...	21	...	...	...	238	67
Dacca .....	...	4,266	6	7,830	398	...	6,331	1,027	179
Small places in the Dacca district ..	...	...	32	72	1,063	...	2,680	966	308
Small places below Dacca ..	...	...	...	...	200	...	...	...	...
Small places not assigned to any district ... ..	...	...	...	...	612	...	371	...	180
Totals	11,689	99,011	89,992	68,532	459,605	16,044	31,008	103,596	40,699

DIX 2.

Ganges past Sahebgunge during the first six months of 1872. The quantities standard maunds.

[illegible]

APPEN

*Showing the amount of goods in standard maunds shipped at places
the first six*

PLACES OF SHIPMENT BELOW SAHEBGUNGE.	Rice.	Wheat.	Other cereals.	Pulses and gram.	Oil-seeds.	Jute.	Cotton.	Sugar.	Tobacco.
Old Sahebgunge	12	...	5	170	72	...	...	...	...
Rajmehal	...	...	...	875	155	...	...	16	...
Neighbouring small places	1,960	...	...	2,217	1,700	...	...	...	...
Rajmunge	53,972	...	...	...	...	224	...	4	...
Maldah	36,605	...	300	3,345	...	1,402	...	76	...
Neethpore	265,331	...	...	126	...	...	...	...	...
Hayethpore (Maldah)	116,078	15	610	17,076	1,210	...	...	80	7
Moochna	57,661	...	...	171	...	130	...	...	...
Robunpore (Maldah)	303,688	...	...	1,864	121	20	...	...	...
Sahebgunge	592	...	906	796	...	1	25,895	22	3
Small places in the Purneah district	798	...	...	2,371	2,061	...	...	...	...
Ditto in the Maldah district	31,846	...	1,622	4,308	789	17	...	...	24
Kalkamarah (Dinagpore)	37,986	...	...	25	...	...	...	...	...
Assance ditto	82,726	...	100	300	...	...	...	...	...
Small places in the Dinagpore district	18,798	...	...	...	...	...	...	...	...
Doolan (Moorsheadabad)	23,780	150	1,060	33,997	...	1,061	...	...	...
Jungypore ditto	208,548	...	10	18,032	...	100	...	...	...
Jeagunge ditto	3,726	...	...	109	...	...	...	...	...
Small places in Moorsheadabad and Berhampore district on Ganges	1,436	...	...	...	...	...	...	...	...
Small places in Moorsheadabad and Berhampore district on Bhagirutha	2,316	30	37	229	...	...	...	...	...
Small places in the Nuddea district	53	...	...	40	...	...	...	...	...
Kooshies (Kiesengunge)	25	...	...	380	...	25	...	...	...
Bhadesur (Hooghly)	280	...	...	...	...	...	...	...	...
Small places in the Hooghly district	12,644	...	240	1,698	...	53	...	...	100
Calcutta	39,702	...	...	2,474	50	240	...	...	...
Rampore Baulah	51,596	...	...	...	...	...	...	...	...
Goodangary (Rajshahye)	...	...	...	...	...	...	...	...	...
Small places in the Rajshahye district	2,935	...	110	111	...	...	...	...	...
Small places in the Jessore district	150	...	...	...	...	...	...	...	...
Fureedpore	50	...	...	...	250	...	...	...	...
Small places between Rajshahye and Goalundo	1,371	...	...	2,637	200	...	...	...	...
Small places on the Berhmapootra above Goalundo	465	...	...	12	...	...	...	...	...
Dacca	185,584	...	...	326	45	945	...	...	...
Small places in the Dacca district	3,946	...	...	...	...	16	...	...	...
Gopalgunge (Backergunge)	13,831	...	...	...	...	...	...	...	...
Small places in the Backergunge district	140	...	...	...	...	...	...	...	...
Sylhet	765	...	...	...	...	...	...	...	...
Cachar	10	...	...	...	...	...	...	...	...
Small places not assigned to any district	2,605	...	...	...	...	...	...	...	...
Totals	1,504,082	193	5,055	93,389	6,653	4,235	25,895	198	134

DIX 3.

below Sahelgunge for places above the registering station during months of 1872.

Spices and pepper.	Miscellaneous vegetable produce.	Shell-lac and other dyes.	Timber.	Brass and brass work.	Other metals.	Salt.	Hides.	Chee.	Silk goods.	Cotton goods.	Gummes.	Miscellaneous.	Total.
84	31,551	...	561	..	488	20	..	...	..	4	.....	5,154	38,121
..	456	..	3	..	100	..	..	..	..	..	..	3,119	4,284
63	874	..	13	..	...	580	..	..	1	..	..	2,600	10,104
24	85	57	...	...	...	...	..	..	1	..	5,805	2,071	62,193
920	1,120	76	...	39	41	400	..	..	30	100	11,372	2,853	59,040
...	1,481	..	40	407	520	50	12	..	...	4	100	568	139,058
...	...	...	...	...	...	...	..	..	..	..	50	...	58,012
...	36	...	...	...	...	150	...	..	1	...	...	548	306,128
12	2,090	187	677	547	986	425	...	47	...	290	19	6,767	40,323
..	487	..	1	..	..	...	6	...	...	...	...	639	6,363
89	899	...	2	300	...	265	7	...	591	25	...	5,935	46,719
...	...	...	...	...	...	...	...	..	...	...	...	...	38,011
...	...	...	...	...	...	...	...	..	...	...	...	...	83,126
70	..	..	...	...	...	...	...	...	...	...	...	27	18,895
85	220	4	2	..	...	1,395	...	...	...	...	40	889	62,684
...	...	778	...	...	150	570	..	..	...	10	400	51	228,619
139	...	140	..	100	51	16,278	...	...	...	...	60	3,601	24,024
...	...	...	...	...	...	10	..	...	...	...	...	...	1,446
6	55	643	1	10	...	5,238	..	...	...	8	...	1,618	10,281
125	...	...	...	...	...	...	13	...	...	...	...	...	231
20	..	..	..	..	26	63,544	..	..	..	..	574	1,195	65,089
..	44	...	...	...	1,075	...	..	..	..	..	5	1,404	...
2,638	2,584	7,242	...	258	24,478	337,592	...	...	...	16	1,425	5,943	396,303
46	646	...	...	...	...	990	...	...	100	...	90	347	44,685
...	...	...	...	...	...	...	...	..	...	...	...	...	51,596
..	...	...	...	...	...	...	..	...	...	...	...	...	3,156
...	...	...	...	...	...	...	..	...	...	...	...	...	150
...	...	...	...	...	...	...	..	...	...	...	...	12	342
104	5,000	10	..	..	401	...	...	...	...	..	...	743	10,556
..	...	...	...	...	...	...	...	...	...	...	...	...	477
2,424	1,500	425	..	...	...	...	254	...	...	...	...	37,818	220,281
831	580	...	..	...	...	...	...	...	...	...	...	4,089	9,425
...	...	...	...	...	...	...	...	...	...	...	...	...	13,831
99	40	...	...	..	...	...	..	...	...	...	...	1,791	2,079
240	...	...	...	...	...	...	..	...	...	...	...	...	1,005
68	...	...	...	...	...	...	..	...	...	...	...	...	78
...	...	...	...	...	...	...	..	...	...	...	...	...	9,115
10	5,000	...	..	...	..	...	..	...	...	...	...	1,500	...
8,097	54,907	9,563	1,300	1,661	27,391	428,584	292	47	724	457	19,943	89,904	2,372,722

APPEN

*Showing the alleged destination of goods carried up the Ganges
are expressed*

DESTINATION	Rice.	Wheat	Other cereals.	Pulses and gram.	Oil-seeds.	Jute.	Cotton.	Sugar.	Tobacco.	Spices and pepper.
Allahabad ..	24,161									
Mirzapore ..	82,741	70	11	1,861	...	438	...	...	50	...
Benares ..	212,450	5	42	493	...	100	...	...	...	101
Burhuj (Jounpore district)	7,490			778			...	...	...	...
Bellthoria (ditto)	26,456			1,274			...	...	...	...
Ghazee pore ..	144,611			1,229			...	...	...	47
Moniar ..	111,290			8,810			...	...	...	...
Bana Ghazee pore	159,643		150	876		187	.....	...	...	...
Small places in the North- Western Provinces	53,874			3,400		115	45	...	...	94
Buxar ..	14,589			100		100	...	...	...	14
Arrah ..	10,046			329			...	...	...	...
Dooreegunge ..	5,565		100	100			...	...	...	...
Mohomed pore ..	44,518			562			...	...	...	...
Solimpore ..							...	...	...	...
Revelgunge ..	162,144		10	17,798		150	...	...	...	...
Chupra ..	46,812			1,575		10	...	...	...	10
Cherun Chupra	18,302			7			...	...	...	...
Gunduk Saheb gunge (Tirhoot)	898		..	552			...	...	...	...
Hajee pore ..	5,817			780			...	...	...	10
Mozufferpore (ditto)	45,041		70	3,021			...	...	...	...
Somaster pore (ditto)	16,212		110	3,215			...	...	...	...
Durbhunga (ditto)	187			2,875		25	...	...	44	265
Koshra (ditto)	8,285	25	75	15,213		640	...	...	...	31
Dum pore ..	52,075			2,544		270	...	...	...	483
Patna ..	234,418	50	860	11,051		1,075	...	...	...	2,841
Sasban ..	12,196	...		963			...	...	...	...
Barrh ..	32,096	...	400	2,747	200	25	...	...	...	286
Mokunch ..	680					...	...	...	...	...
Small places in Patna division north of Ganges	38,153		115	3,291		15	...	...	...	...
Small places in Patna division south of Ganges	36,424		22	1,121	...	7	...	...	...	20
Khaeratah (Monghyr)	757			173			...	...	...	400
Monghyr ..	2,957			2,268		184	...	...	...	325
Mooreegunge (Bhagulpore)							...	...	...	5
Bhowan pore (Purneah)	3,025						...	...	...	320
Caragola ..	120			...	125	25,617	91	...	...	2,201
Small places in Purneah dis- trict	4,716	150	440	375	16	1	233	22	...	25
Bhagulpore ..	4,570			555	75	45	...	...	...	147
Bana Saheb gunge ..	2,652	...		289	616		...	2	...	157
Saheb gunge ..	8,571	15	...	573	6,691	430	.....	4	44	309
Small places in Monghyr dis- trict	9,680		400	1,050		...	...	...	...	...
Small places in Bhagulpore district	5,222		5	1,105	180	50	...	80	3	120
Small places not assigned to any district	12,861	..	..	1,645	...	17		...	...	229
Totals ..	1,654,313	295	2,810	94,331	7,778	4,039	25,895	199	141	8,438

DIX 4.

past Sahelgunge during the first six months of 1872. Quantities in maunds.

Miscellaneous table produce.	Shell-lac and other dyes.	Timber.	Brass and brass work.	Other metals.	Salt.	Hides.	Horns.	Ghee.	Silk goods.	Cotton goods.	Gunnies.	Miscellaneous.	Total.
...	...	...	...	...	200	...	...	...	...	...	...	4,054	28,350
37	1,825	...	...	1,280	381	...	...	...	...	...	25	55,097	114,016
92	710	...	...	125	50	...	...	...	...	...	50	2,974	246,322
...	...	...	...	575	5,200	...	...	...	...	...	...	...	14,043
...	...	...	...	...	...	...	...	...	...	...	...	...	27,730
12	550	...	...	975	840	42	...	...	...	...	...	170	148,164
...	...	...	...	398	1,290	...	...	...	...	...	100	24	121,244
...	...	...	10	...	4,505	...	...	...	...	...	...	500	165,841
...	...	...	...	1,376	9,838	...	...	...	...	...	135	1,577	73,506
...	...	...	...	...	...	...	...	...	...	...	...	...	14,680
...	...	...	...	...	...	...	...	...	...	...	...	...	10,380
...	...	...	...	...	...	...	...	...	...	...	...	...	5,705
...	...	...	...	...	...	...	...	...	...	...	...	...	41,880
...	...	...	...	50	20,175	...	...	...	...	...	...	...	20,225
...	218	...	...	253	53,000	...	...	...	...	...	6	87	234,466
150	...	...	...	...	2,530	...	...	...	...	...	...	25	21,162
...	150	...	...	...	7,975	...	...	...	...	...	...	...	26,424
...	...	...	...	275	93,212	...	...	...	...	...	...	...	94,917
...	...	...	...	...	4,400	...	...	...	...	...	...	4	11,001
...	...	...	...	20	3,710	...	...	...	...	...	...	110	51,982
...	...	...	...	...	1,917	...	...	...	...	...	...	30	21,544
4	106	...	58	2,393	51,046	...	...	...	...	23	90	4,118	61,192
...	12	...	...	540	58,085	...	...	...	...	...	2,338	4,666	89,910
100	...	...	...	...	1,725	...	...	...	...	...	169	509	58,166
12,058	3,130	...	200	14,485	22,194	...	...	...	...	...	175	13,562	316,588
...	...	...	...	...	...	...	...	...	...	...	20	...	13,119
533	...	...	...	...	3,975	...	...	...	...	...	80	78	40,420
25	32	...	...	444	12,200	...	...	...	...	...	...	...	13,381
...	72	...	...	1,767	9,237	213	...	...	...	12	...	421	53,316
380	...	100	...	68	...	...	...	...	...	...	...	314	32,756
...	...	...	...	...	26,532	...	...	...	...	...	595	6,710	35,007
200	328	...	...	557	16,611	...	...	...	...	...	2,012	2,886	28,446
...	25	...	...	457	14,105	...	...	...	...	32	25	1,959	16,608
1	80	24	...	169	6,192	...	...	...	...	1	...	163	10,578
768	275	130	778	685	8,675	...	...	16	1	115	1	16,031	55,530
4,404	14	759	258	61	9,528	...	...	1	100	68	48	3,899	25,218
21,126	100	188	235	63	16,754	...	...	...	...	8	250	8,452	62,428
...	575	...	95	81	16,821	...	...	...	...	...	...	7,135	28,523
2,809	35	5	60	...	3,911	7,918	560	...	24	6	12,791	1,972	46,528
...	...	4	...	325	1,500	13	...	...	...	...	30	127	13,120
56	186	407	14	112	10,537	...	...	...	...	...	55	1,456	19,627
...	...	78	...	163	4,652	6	...	...	...	...	...	170	18,561
42,855	8,462	1,695	1,768	27,637	503,145	8,192	560	47	125	268	19,786	110,746	2,553,912

APPENDIX 5.

*River Traffic by the India General Steam Navigation Company's steamers
above Sahebgunge during the first half-year of 1872.*

Downward Cargo.

Place of Shipment.	Cotton.	Seeds.	Saltpetre.	Wheat.	Jute.	Tallow.	Lac-dye.	Miscellaneous.	Total.
Allahabad ... ..	...	...	...	...	...	...	...	50	50
Mirzapore	8,766	13,981	51	...	...	...	63	...	22,860
Ghazee pore ... ..	...	139	...	8	...	99	...	...	216
Revelgunge	417	1,884	155	...	...	...	...	...	2,156
Patna ... ..	...	3,096	...	...	...	...	...	...	3,096
Barh ... ..	...	279	...	...	...	...	...	...	297
Monghyr ... ..	...	1,280	...	...	...	...	...	...	1,280
Luttee pore ... ..	...	2,627	...	1,198	...	...	...	...	3,825
Caragolah ... ..	...	48	...	...	1,580	...	...	...	1,628
Total	9,183	23,352	206	1,206	1,580	99	62	50	35,738

Upward Cargo.

Place of Destination.	Cocoanuts.	Metals.	Salt.	Miscellaneous.	Total.
Allahabad	441	15,527	...	7,713	23,681
Mirzapore	1,803	17,482	...	4,601	23,786
Benares ... ..	...	4	...	236	240
Ghazee pore ... ..	...	484	...	448	932
Revelgunge ... ..	...	674	22,604	618	23,896
Dinapore ... ..	...	66	222	892	1,170
Patna ... ..	...	1,420	4,000	1,707	7,127
Bulleeah ... ..	...	1,619	...	478	2,097
Monghyr ... ..	...	597	2,000	134	2,731
Soottangunge ... ..	...	405	...	...	405
Rajwallah Ghât ... ..	...	381	...	...	381
Total	2,244	38,649	28,826	16,727	86,446

TRAFFIC ON THE GANGES AND OTHER
BENGAL RIVERS, 1872.

Traffic on the Ganges and other Bengal Rivers, 1872.

Dated Calcutta, the 7th July 1873.

RESOLUTION.—By the Government of Bengal, Statistical Department.

1. IN a resolution dated the 18th November last were explained the arrangements made for registering the trade on the Ganges past Sahebgunge, and the traffic returns for the first six months of 1872 were reviewed. It was stated that Sahebgunge had been selected as the place of registry, because nearly all its great tributaries entered the Ganges above Sahebgunge, which was above the point where the most westerly of the Ganges mouths leaves the main stream for the sea. Sahebgunge, again, is situated on a rocky headland, directly under which the deep stream of the Ganges passes. During the rainy season of 1872, while the river was in flood, the convenience of Sahebgunge as a registering station was further proved; for six weeks during the height of the freshes a second boat channel close to the left bank of the river was used, and special arrangements had to be made for the registering boats taking that channel. During the last week of August and the whole of September, about one-quarter of the boats passing up and down the river took the new channel on the left bank; but by the beginning of October the river had fallen, the left bank channel was impassable, and all the traffic returned to the usual deep channel under Sahebgunge. The traffic returns for the second half of the year 1872 are now complete. Detailed statements for the second half-year, together with the totals of the previous half-year's returns, are appended to this resolution.

2. Mr. Wilmot, Assistant Commissioner of the Sonthal Pergunahs, who has had charge of the registering establishment throughout, when forwarding the returns for December 1872, wrote,—“The traffic of the Ganges during the second half-year has proved to be much more important than that which was shown during the first half-year. This is just what might have been expected. It is, however, impossible to express any idea whether the trade was during the past year (1872) more or less than usual. The description of boats passing Sahebgunge are as follows: *mulnees*, *woolacks*, *pansays*, *celas*, *pulcavs*, *pateless* or *katras* and *doats*. It seems to be the custom during the rains for boats going downward to take full loads, but for the upward passage they are seldom more than half loaded, being the reverse of what was the case in the first half-year.” * * *

“The reason why boats are more laden in the rains for down traffic than in the dry weather, is because it is supposed to be more safe, as boats are less likely to get on sandbanks, and there is so much more water to float them than at other times.” * * *

Regarding the different classes of boats, Baboo Parbutty Churn Bose, the boat registrar, writes—"Ganges boats are generally owned by the manjees (boatmen), the merchants or mahajuns hire to carry their goods. *Patelee* and *katra* boats are built at Mirzapore; *mulnee* boats are built at Patna, in the Monghyr district, and on the river Gunduck in the Chuprah district; *ceta* boats are built on the river Deleswar, in the Goruckpore district; *sorinda* and *koosee* boats are built on the river Koosee, in the districts of Purneah and Bhagulpore; *pansay* boats are built in the Maldah district; and *pulcar* boats are built at Dacca and in its neighbourhood. Boats that are despatched from Mirzapore for Calcutta or Moorshedabad generally make one trip during the year. *Pulcar* boats despatched from Eastern Bengal for the Patna, Chuprah, and Ghazeeepore districts, make three trips during the year; all the rest generally make two trips, that is, they take their cargoes down stream during the rains and return in the dry season with rice and salt."

Regarding the manner of registration, Mr. Wilmot writes—"When the registry station was first established at Sahebgunge, it was found very difficult to get the majority of the boats passing the station to give an account of themselves. They appeared all to have an idea that something in the shape of money was wanted from them, or that their boats were required to convey troops or goods to Caragola. It took a long time to acquire their confidence, although no examination of the boats was made, and the information as to cargoes was got entirely from the manjees (boatmen) and chirundars (super-cargoes).

* * * I believe the year's operations have been concluded without delay or oppression of any kind at Sahebgunge. At the first starting of the registration, two men were imprisoned for extorting Rs. 1-8 from some boatmen on pretence of their being darogah and jemadar, but since then nothing of the kind has happened again."

3. The total number of country boats which passed Sahebgunge during the year were—

* *Up-stream traffic.*

	Loaded boats.	Passenger boats.	Empty boats.	TOTAL.
January	1,105	11	553	1,669
February	1,308	31	444	1,783
March	1,361	91	426	1,878
April	764	19	496	1,279
May	1,472	19	513	2,004
June	1,499	13	339	1,851
July	1,055	12	277	1,344
August	1,821	25	273	2,119
September	1,515	21	317	1,856
October	1,132	33	483	1,648
November	1,115	34	417	1,566
December	892	20	425	1,337
Total ..	15,030	332	4,993	20,355

Down-stream traffic.

	Loaded boats.	Passenger boats.	Empty boats.	TOTAL
January	1,267	37	260	1,564
February	1,162	19	407	1,588
March	1,192	24	346	1,562
April	891	65	220	1,276
May	705	55	172	933
June	755	27	259	1,061
July	2,646	17	470	3,163
August	1,976	55	499	2,530
September ...	1,798	42	526	2,366
October	1,346	90	385	1,822
November	1,908	110	417	2,435
December	1,704	117	519	2,340
Total	17,431	688	4,461	22,580

About 43,000 boats in all passed Sahebgunge during the year, at the rate of about 100 per diem during the first half of the year and about 140 per diem during the second half. During the first six months the up-stream traffic was larger and heavier than the down-stream; but during the second half-year, when the river was in flood, the down-stream traffic was very much the larger.

The average freight of each laden boat was—

	<i>Up-stream.</i>				Maunds
First half of the year	320
Second half of the year	310

	<i>Down-stream.</i>				
First half of the year	223
Second half of the year	364

The two great articles of produce—rice and oil-seeds—which together make up more than half of the whole Ganges traffic, may to some degree cause—at any rate they fall in with—the condition of the river trade. Rice comes into the Bengal market in December and January, and is despatched up-country for consumption in Behar and Benares during the dry season, when the up-stream traffic is briskest; oil-seeds come into the Behar and Benares markets in April and May, and are despatched to Calcutta for export during July and the rainy season, when the down-stream traffic is the largest. During the whole year only eleven steamers with their flats passed up, and eleven steamers passed down, the river. These steamers all belong to a European company in Calcutta, and they seem to get very little of the ordinary traffic of the country. They get twice as much as cargo on their up-stream as they do on their down-stream trips. They carry very little of the great staples, such as oil-seeds, rice, and salt; but carry most of the metals and machinery, and much of the miscellaneous European goods which are sent up-country by river. Neither country boats nor steamers get any of the piece-goods traffic between Calcutta and the Upper Provinces.

4. The total weight of the cargoes passing Sahebgunge during the year 1872 is shown to have been—

<i>Down-stream traffic.</i>				Total cargo in maunds.
1ST HALF-YEAR ...	{ Country boats ...	1,364,930		
	{ Steamers ...	35,738		
				1,400,668
2ND HALF-YEAR ...	{ Country boats ...	4,254,686		
	{ Steamers ...	50,123		
				4,304,809
				5,705,477 — 209,200 tons.
<i>Up-stream traffic.</i>				
1ST HALF-YEAR ...	{ Country boats ...	2,372,722		
	{ Steamers ...	86,446		
				2,459,168
2ND HALF-YEAR ...	{ Country boats ...	2,435,711		
	{ Steamers ...	89,663		
				2,525,377
				4,984,545 — 182,766 tons.

The appended statements, Nos. 1—4, give details of the up and down-stream traffic during the second half of 1872; they show particulars for each mart which either despatched or received more than 10,000 maunds of goods during the half-year. Marts where the transactions were small are grouped together: for instance, the transactions of the smaller marts in Eastern Bengal are shown together, as also the transactions of the smaller marts in the Tirhoot and Sarun districts, and of the smaller marts in the Patna and Shahabad districts. The totals for the preceding half-year are also given, but the traffic of those six months are not repeated with the same detail as was given in the statements appended to the resolution of the 18th November last. Goods that are usually measured by tale have been reduced to maunds, according to the table which was used for the traffic returns of the first half-year, except that hides have been converted into maunds at a little under 4 to the maund. The steamboat traffic is given in Appendix No. 5, with such details as were furnished by the Steamboat Company.

- 5. The chief staples of the down-stream traffic during the year were—

	Maunds.			
Wheat	432,000
Oil-seeds	2,580,000
Pulses and gram	448,000
Sugar	545,000
Tobacco	108,000
Saltpetre	323,000
Cotton	77,240

Nearly all the wheat that comes down the river is shipped at marts in the Monghyr and Bhagulpore districts. Very little wheat comes from the Patna division, and none comes from the North-Western Provinces. Of the pulses also more than half is shipped from the Monghyr, Purneah, and Bhagulpore districts, the rest comes from the districts of the Patna division. Of the oil-seeds—

About one-half, or nearly 1,300,000 maunds, come from the Patna division.
 „ three-eighths „ 900,000 „ „ Bhagulpore division.
 „ one-eighth, or over 300,000 „ „ N. W. Provinces.

The largest shipments of oil-seeds are made from Revelgunge in the Sarun district, at the meeting of the Ghogra and the Ganges; from this mart alone more than 500,000 maunds of oil-seeds were despatched. The next largest oil-seeds mart was Roshra, a comparatively little known place on the Chota Gunduk River, in the Durbhunga subdivision of Tirhoot. From Roshra 345,000 maunds of oil-seeds were despatched, while Durbhanga and Somastipore, two other towns in the Tirhoot district, sent about 100,000 maunds between them. From the marts of the Patna division, on the south of the Ganges, comparatively little oil-seed was despatched. Patna sent 200,000 maunds; but from other places in Patna or Shahabad not more than 30,000 maunds were despatched. More than four-fifths of the oil-seeds passing Sahebgunge was consigned to Calcutta, or to places on the Bhagirathee which feed the Calcutta market.

Out of 545,000 maunds of sugar passing Sahebgunge, more than 400,000 maunds come from the Benares province, mainly from the districts of Gazeepore and Jounpore; nearly all the rest comes from the districts of Chuprah and Tirhoot. Of this Ganges-borne sugar, Calcutta takes a little more than one-third, and the rest is consigned for consumption in the Dinagepore, Maldah, Rajshahye, Pubna, and Moorshedabad districts. Some part of the 130,000 maunds of sugar consigned to places in the Moorshedabad district may eventually find its way to Calcutta, or it may be re-exported to other districts of Western and Central Bengal. Tobacco comes mainly from Tirhoot and Purneah, in which districts it is known to grow well near the hills. Most of the tobacco is consigned to places in the Moorshedabad district, and a good deal comes to Calcutta. Hardly any tobacco comes from the North-Western Provinces.

River-borne saltpetre comes almost entirely from the Tirhoot and Sarun districts; some little comes from the Monghyr and Bhagulpore districts. Only 13,000 maunds came from the North-Western Provinces, and 4,000 maunds came down the Ghogra from places in Oudh; Gunduk-Sahebgunge, Chuprah, Durbhunga, Solimpore, Hajeeepore, and Poosa, were the chief places of exports for saltpetre. Only 5,000 maunds are shown to have been shipped from Patna or from places in the Patna division south of the Ganges, a result which is somewhat surprising, inasmuch as Patna had been supposed to be the head-quarters of the Behar saltpetre trade; it will be seen in a subsequent paragraph that considerable despatches of saltpetre are sent from Patna by rail. Almost all the saltpetre passing Sahebgunge was consigned to Calcutta.

More than three-quarters of the cotton passing Sahebgunge came from Mirzapore; the bulk of it was consigned to places in the Rajshahye division and in Eastern Bengal.

The Ganges-borne trade in hides is smaller than might have been expected. The total number of hides and skins (by tale) passing Sahebgunge was about 330,000; more than three-quarters of this amount left the river at Sahebgunge and took to the rail there. A very much larger number came into Calcutta by railway, the explanation probably being that hides cannot bear a long river-journey, in the damp season without spoiling. More than two-thirds of the whole number came down in the dry season.

The number of logs, planks, and posts, 43,000 in all, is smaller than might have been expected, seeing that a great part of Western, Central, and Eastern Bengal draws its supplies of timber from the sâl forests at the head-waters of the Ghogra, the two Gunduks, and the Koosee.

6. The Lieutenant-Governor has not yet been able to obtain from the East Indian Railway Company statistics of the goods traffic of 1872. For the years 1870 and 1871, however, there are available returns of the chief commodities received at and despatched from Howrah and Calcutta. In some respects the trade of 1871 was abnormally small; and for the purpose of comparison it will be best to take a mean between the traffic figures of these two years. The Ganges country-boat trade figures compare with the railway traffic figures thus:—

		QUANTITY OF GOODS IN MAUNDS.	
		Consigned in one year to Calcutta and Howrah by railway (being the mean of the two years 1870 and 1871) from all stations on the East Indian Railway.	Consigned by the Ganges to Calcutta and the neighbouring marts from places above Sahibganje.
Cotton ...	...	658,000	20,000
Oil-seeds ...	...	2,188,000	2,300,000
Wheat, other grains, and pulses	...	808,000	888,000
Saltpetre ...	...	289,000	333,000
Shell-lac and dye ...	...	99,000	5,123
Sugar...	...	156,000	180,000

The river draws its trade in effect from places below Benares, while the railway serves the whole of the North-Western Provinces and parts of Central India; but there are no figures available to show how much of the East Indian Railway traffic comes from beyond Benares. It seems that the railway already gets all, or nearly all, the down traffic in costly goods of comparatively small bulk, such as cotton, indigo, shell-lac, ghee, and oil; but it has as yet failed to attract quite half the Behar traffic in bulkier produce, such as oil-seeds, grains and pulses, saltpetre, and sugar.

7. A satisfactory test of the approximate accuracy of the Ganges trade figures may be here applied thus: the total weight of saltpetre reaching Calcutta by river and railway is, according to the foregoing figures, 622,000 maunds. The Custom House returns show that the export of saltpetre from the port of Calcutta was 425,000 cwts. in 1871-72, and 478,000 cwts. in 1870-71, giving an average of 451,500 cwts., equal to 541,140 maunds. The consignments of saltpetre by river and rail, as shown above, would admit of a somewhat increased export in 1872; so that the Custom House returns warrant us in believing that the returns of Ganges-borne saltpetre are tolerably correct.

8. The principal staples of the up-stream traffic are—

		Mds.
Rice ...	...	2,753,000
Salt ...	...	1,185,000
Pulses	...	191,000
Gunnies	...	273,104

Considerably more than half the rice goes up in the dry seasons. The chief despatches of rice are—

	Mds.
From the Maldah and Dinagepore districts, about ...	1,500,000
„ „ Rajshahye district, about ...	320,000
„ Dacca and its neighbourhood, about ...	420,000
„ the Moorshedabad district, about ...	320,000

Rice from Central and Eastern Bengal is most largely consigned to—

	Mds.
Mirzapore, which took about ...	110,000
Benares, „ „ „ ...	300,000
The Ghazee-pore district, which took about ...	760,000
„ Tirhoot and Chuprah districts took about ...	580,000
„ Patna district took about ...	760,000

These quantities seem large, but, after all, 1,340,000 maunds of rice is comparatively an insignificant contribution to the food-supplies of the thirteen millions of people in the Patna division; it would barely feed one-third of a million of people for one year. In return for this rice the Patna division sends southwards by river for export 1,300,000 maunds of oil-seeds, besides sending nearly 500,000 maunds of seeds by rail, as well as many thousand maunds of indigo and opium. The rich soil of the Patna division thus very much more than supports its large population of 553 souls to the square mile.

Salt is shipped upwards entirely from Calcutta and marts on the Hooghly near Calcutta, and it is consigned mostly to the districts of Tirhoot and Sarun, and places in Monghyr and Purneah. Comparatively little river-borne salt goes to Patna, or to places in the Patna division south of the Ganges. These tracts are probably supplied by the railway, for about 300,000 maunds of salt were consigned to the Patna railway station alone in the year 1871. The deliveries of river-borne salt were—

	Mds.
To places in the Tirhoot and Sarun districts, about ...	650,000
„ „ Ghazee-pore and Goruckpore districts about ...	80,000
To places in the Patna division, south of the Ganges, about ...	115,000
To places in the Bhagulpore division, about ...	370,000

The pulses sent up-stream are shipped chiefly from the Moorshedabad district, and are consigned to Rosrah and other places on the left bank of the Ganges in the Patna division.

9. In the year 1872, when discussion was going on regarding the falling off in the East Indian Railway traffic, statistics of the outward and inward trade of the Patna station were published, and it may be interesting to compare the railway-borne and river-borne

traffic of this important mart. Taking the more considerable items only, we find that they compare as follows :—

• *Railway and River Traffic of Patna City, being the River Traffic for 1872 and the Railway Traffic for 1871.*

	RECEIPTS.		DESPATCHES.	
	By river.	By rail.	By river.	By rail.
	Mds.	Mds.	Mds.	Mds.
Salt	82,000	292,000	.....	.....
Rice, grains, and pulses ...	594,000	39,000	.....	.....
Oil-seeds ... ..	.....	.....	202,000	400,000
Saltpetre ... ..	.....	.....	1,800	76,000
Sugar ... ..	.....	.....	10,000	153,000
Tobacco ... ..	.....	.....	18,000	19,000
Piece-goods ... ..	.....	78,000	.....	.....
Indigo and dyes ... ..	.....	.....	1,000	47,000
Iron and other metals, excluding railway materials	24,000	22,000	.....	.....

Thus the only item in which the railway has not already got the greater part of the Patna traffic is the upward trade in rice and other grains. The greater part of these rice and grain consignments start from places in the Rajshahye division, from which access to the railway is difficult. Although the railway has thus attracted the bulk of the down traffic from Patna, still there is a very large trade in seeds and salt which it might attract if it could get the traffic of Revelgunge, Roshra, and the larger marts in Tirhoot, Chumparum, and Ghazee pore.

10. The total weight of cargoes passing Sahebgunge, and of cargoes consigned by river to and from Calcutta, may be compared with the railway receipts and despatches from Calcutta and Howrah thus—

Up-stream and up-country traffic.

	Mds.	Tons.
Despatches from Calcutta and Howrah, exclusive of coal and railway material (average of years 1870 and 1871)	5,777,000	= 211,823
Cargoes passing Sahebgunge up-stream, shipped from all places below the registering station ...	4,808,436	= 176,309
Cargoes passing Sahebgunge up-stream, shipped from Calcutta and places close to Calcutta ...	1,400,000	= 51,333

Down-stream and down-country traffic.

Receipts at Calcutta and Howrah, exclusive of coal and railway material (average of years 1870 and 1871)	5,875,000	= 215,416
Cargoes passing Sahebgunge down-stream, shipped at all places above the registering station	5,619,616	= 206,052
Cargoes passing Sahebgunge down-stream and consigned to Calcutta or places close to Calcutta	4,120,000	= 151,066

Thus, much of the goods despatched from the Calcutta railway stations is consigned to places below Sahebgunge : for instance, some lakhs of maunds of salt go to Ranee gunge and other stations for consumption in Western Bengal and in Chota Nagpore ; still the East Indian Railway clearly has attracted the bulk of the traffic from Calcutta to places in Southern Behar and in the North-Western Provinces. There is, however, still left on the river a traffic of at least

two millions of maunds, which the railway might, by dint of low rates and special facilities, attract to itself. If the railway could undertake to receive and deliver goods at marts like Revelgunge, Roshra, Chuprah, and Ghazee-pore it ought in time to obtain a very large share in the carrying trade between Calcutta and the fertile districts lying between the Koosee river and the frontiers of Oudh.

11. In the review of the Ganges trade returns for the first half of the year, the Lieutenant-Governor reserved any expression of opinion as to the accuracy or otherwise of the figures. From a consideration of the returns for the whole year, the Lieutenant-Governor is induced to believe that the traffic statistics collected at Saheb-gunge are becoming fairly correct, though they probably were, as surmised by Mr. Wilmot, the officer in charge of the business, at first somewhat untrustworthy. The test furnished by the saltpetre customs returns would show that the Ganges trade returns are at any rate approximately correct. The salt and oil-seeds trade figures do not in any way conflict with, though they cannot be so completely tested by, the Custom House returns. The Lieutenant-Governor was not aware that so large a share of the oil-seeds exported from Calcutta was grown in the districts of Trihoote, Sarun, Chumparun, and Goruckpore; nor that Northern and Eastern Bengal drew such large supplies of sugar from the provinces of Behar and Benares. But these general results of the Saheb-gunge registration may be accepted as quite correct, and do not throw any doubt on the approximate accuracy of the Ganges trade returns.

12. The Assistant Commissioner of Rajmehal, Mr. Wilmot, to whom the thanks of Government are due for the care he has given to these returns, proposes that "the Saheb-gunge registry office should be maintained for another year, and that the information should be collected more carefully by the registering officer, not contenting himself with the statements of the manjees and cherundars, but personally satisfying himself that the statements made are fairly correct, either by comparing them with the chalans or by himself personally visiting the boats." The Lieutenant-Governor certainly wishes that the registering establishment should be maintained, and he approves of the registering officer's *occasionally* comparing the statements of the boatmen with the manifests of their cargoes; but the duty of effecting such comparison should not be delegated to any one below the rank of the boat registrar, who is a well-paid official, and who may be fairly trusted not to permit any oppression or extortion.

13. The Lieutenant-Governor recently enquired of the Commissioner of Patna where the river trade of the North-Western Provinces with Behar and Bengal could be most easily registered without inconvenience to traders. Mr. Bayley reports that, after consulting the district officers, he finds that Revelgunge, the place suggested by the Lieutenant-Governor, will be the best registry station in the Patna division. As a great majority of the Ganges boats stop at Revelgunge, there will be a minimum of inconvenience to the trade. For the present the Lieutenant-Governor would not establish a second registry station, for he fears that, however well it may be managed, some loss and interruption must be caused to the trade. Moreover, at Revelgunge, which is confessedly the best place for such registration, there is no resident Magistrate or sub-divisional officer to prevent extortion.

14. The Lieutenant-Governor's resolution on the returns of the first half-year was forwarded to all commissioners and collectors whose jurisdictions were on the Ganges, and also to the railway companies, whose remarks were invited. The Collector of Purneah (Mr. Kemble) has drawn attention to the fact that large consignments of rice which come down the Koosee river and go up-country to Behar and the North-Western Provinces escape registration at Sahebgunge, as they enter the Ganges above that place. The Commissioner of Burdwan (Mr. Buckland) reported that neither he nor his district officers could usefully criticise the returns of the river trade, unless they had some opportunity of checking the trade of the Hooghly, and he suggested that a trade registering station should be established at Hooghly. Mr. Buckland pointed out that a Hooghly river registry establishment could do good service in checking opium smuggling, which is believed to prevail more or less on the Hooghly. The Lieutenant-Governor, however, decided that, as we had already one station for registering traffic at Jungypore, at the point where the Hooghly waters leave the Ganges, and another at Nuddea, it would be better to improve the Jungypore registration before attempting any other traffic registry on the Hooghly. No other remarks upon or additions to the information published in November last have been received.

15. After the Sahebgunge returns had been compiled and printed, and the foregoing paragraphs had been sent to press, the traffic returns of the Bhagiruthee, the Matabangha, and of the Calcutta canals were received from the Board of Revenue. The Board explains that the traffic returns were not kept in the required shape until the second half of the year 1872, and therefore the figures for that half-year only are available. The Lieutenant-Governor is much obliged to the canal and river officers for the care they have taken to meet the wishes of Government in this matter, and he hopes that the returns for future half-years will be furnished in a shape that will be quite clear and intelligible.

16. The sets of traffic returns now furnished are four, namely:—

The Jungypore Returns.—These are taken at the toll station at the head of the Bhagiruthee, where that river leaves the Ganges. The tables give the weight of goods each way, their place of shipment and alleged destination. They do not show the traffic of places below the Nuddea toll station, which latter station records the Bhagiruthee traffic at a point about 50 miles above Calcutta and about 80 miles below Jungypore. The names of places should be arranged in correct geographical order with the name of the district to which each place belongs.

The Nuddea Returns.—These are taken at the toll station, and show the traffic only of places between Nuddea and Calcutta.

The Matabangha River Returns.—These are taken at the station of Kishengunge on the Matabangha river, by which route the traffic of North-East and part of Eastern Bengal comes to Calcutta. This route is in more or less direct competition with the Eastern Bengal Railway. The Matabangha returns show all the marts in Nuddea and the eastern districts in alphabetical order. There is often more than one mart of the same name; and as the districts to which a place belongs is not given, it is not possible to identify each place.

The Calcutta Canals' Returns.—These returns are taken at toll stations a little outside Calcutta on the canals which connect the Sunderbunds, Backergunge, parts of Jessore, and the country about the Megna river with Calcutta. They show any trade which may go by canal from the Sunderbunds or Jessore towards Western Bengal or Behar. The returns of the Calcutta canals do not show the place of shipment or destination of the traffic, but only its general direction.

The Board of Revenue have arranged to have the returns of all these canals and rivers compiled on a uniform plan, whereby the trade of considerable marts only will be shown, the trade of small places in the same district being lumped together. Further returns should show the number of laden and empty boats for goods and passengers passing each way.

17. Taking the several sets of returns in the above order, we have first the Jungypore returns, which to a great extent exhibit the same down-stream traffic that passes Sahebgunge. Barely 130,000 maunds of goods that pass Jungypore are shipped from places east of Sahebgunge. The sum of the principal traffic figures of the Jungypore and Sahebgunge stations for the second half of 1872 compare thus:—

TRAFFIC PASSING DOWN-STREAM AND REGISTERED AT			
	Sahebgunge Mds.	Jungypore Mds.	
Total of the half-year	4,254,686	3,577,630	..
Oil-seeds	2,109,078	1,150,617	...
Pulses and gram	374,253	743,534	...
Wheat	333,833	133,050	...
Saltpetre	236,175	94,042	...
Total of consignments for Calcutta	3,626,700	3,295,515	...

It will be seen that in one or other of the returns there has been some confusion between pulses and oil-seeds; if the two items be taken together, the difference between the totals of the two registers is only 200,000 maunds. Appendix II. of the Sahebgunge returns shows that places east of the mouth of the Bhagiruthee took about 310,000 maunds of the goods which passed Sahebgunge; deducting this amount, we find the difference between the total traffic for the Hooghly, as registered at Sahebgunge and as registered at Jungypore, is about 330,000 maunds; the Jungypore being less by so much, or by about 10 per cent. This difference is by no means so large as to throw considerable doubt upon the approximate correctness of the returns; for at Jungypore the boatmen pay toll according to their maundage, and may therefore be expected to understate it somewhat, while at Sahebgunge they pay no toll, and have no interest in understanding the truth. The difference in the returns of wheat and of saltpetre coming down the river is much larger than can be explained in this way; and one or other of the returns must be very seriously wrong. The comparison made (at paragraph 7 above) with the Custom House figures would go to show that the Sahebgunge figures are the more correct of the two.

18. The Nuddea toll station returns show the down-stream traffic of the Bhagiruthee from places below Jungypore. The total of this trade is 215,506 maunds, of which one-third, consisting mainly of pulses, comes from Moorshedabad; nearly another third comes from Cutwa (in the Burdwan district), and consists of rice, pulses, and other cereals.

The up-stream traffic from Calcutta is registered at Nuddea; and to some extent the Nuddea returns ought to agree with the Sahibgunge figures. The total shipments up-stream from Calcutta and Bhadessur (Hooghly district) past Nuddea compare with the same shipments past Sahibgunge thus:—

UP-STREAM SHIPMENTS DURING THE SECOND HALF OF 1872 FROM CALCUTTA AND BHADESSUR AS REGISTERED AT			
		Sahibgunge.	Nuddea.
		Mds.	Mds.
Total shipments	...	85,4450	1,445,300
Salt shipments	...	616,129	1,204,800
Shipments of metals	...	13,556	31,975

The share of the total Calcutta shipments which were recorded at Nuddea as being consigned to places east of Sahibgunge was about 330,000 maunds, and the share of the salt shipment similarly consigned was about 240,000 maunds. Thus the shipments for Behar and the North-Western Provinces as registered at Nuddea were 250,000 maunds in excess of the shipments as registered at Sahibgunge; and almost the whole of this excess was in the one item of salt. The excess, it may be added, is uniform for most of the great salt receiving marts. Thus there were shipped for—

				According to the returns at	
Salt shipped from Calcutta and Bhadessur for—				Nuddea,	Sahibgunge
				Mds.	Mds.
Revelgunge	...	...	...	156,075	110,957
Roshra	...	...	...	170,375	126,032
Durbhunga	...	...	...	61,875	46,391
Khagerah (Monghyr)	...	...	...	78,200	39,379
Monghyr	...	...	...	52,250	36,726

The difference seems to be all one way, and to be fairly regular; it may therefore possibly be that the heavier salt traffic sets in during the months of November and December, and that many salt vessels which passed Nuddea before the end of December 1872, did not reach Sahibgunge until January 1873. When a whole year's returns are available for both registering stations, this doubt will be cleared up.

19. The Matabangha river returns exhibit the trade between Calcutta and the districts on the Pudda (local name of the Ganges after the Bhagiruthee leaves it) and the Berhampooter rivers and their tributaries. The names of some of the large marts are not recognized by the Lieutenant-Governor, but we shall doubtless know more about them after the present figures have been published and circulated to district officers. The totals of the Matabangha trade are for the half-year:—

				Mds.
Down-stream traffic	...	...	...	2,325,410
Up-stream traffic	...	...	...	761,702

The principal articles of the down-stream traffic are—

				Mds.
Rice	...	...	...	1,260,587
Jute	...	...	...	606,257
Pulses	...	...	...	220,040
Oil-seeds	...	...	...	57,608
Tobacco	...	...	...	12,611
Gunnies	...	...	...	36,537

Of the total traffic 1,945,013 maunds come to Calcutta. The only other marts which receive large shipments from eastern districts by way of the Matabangha are—

	Mds.
Hanskalce, which takes	40,241
Chaudernagore (or Forasdanga as it is called in the returns)...	262,170

This latter mart is said to take 251,370 maunds of rice alone, and the Lieutenant-Governor would be glad if the Hooghly officers could throw any light upon the circumstances of the Chandernagore trade.

The marts which send large shipments down the Matabangha are :—

Serajgunge, which sends	245,619	maunds of jute.
Potioran " "	115,491	" of rice
Hilece (on the Atrai), which sends	231,598	" of "
Koomaugunge " "	91,875	" of "
Booreedaha " "	163,720	" of jute.
Booshee " "	16,225	" of "
Chandgunge " "	59,000	" of rice
Kallygunge " "	44,294	" of "
Chokgopal " "	42,004	" of "
Fukeergunge " "	77,162	" of "
Jeelen Bazar " "	67,600	" of "
Goalpara " "	41,750	" of mustard seed
Foolbaree " "	33,523	" of rice
Ranganuttee " "	63,350	" of "
Paglec " "	46,050	" of "
Hurreenarampore " "	47,600	" of "

The Lieutenant-Governor would be glad if the Commissioners of Rajshahye, Dacca, and Cooch Behar would give some short notice of such of these marts as belong to their divisions. Serajgunge is really the only one of these marts which has more than a local reputation; Hilece has recently become known, because it is to be a station, and has always been held to be an obligatory point on the Northern Bengal Railway. But regarding the rest of the places there is little or no information available in Calcutta; yet on the list there are places which, like Booreedaha, send some thousand tons of jute to Calcutta in the season, and it would clearly be an advantage that the Calcutta public should know something more regarding the great produce marts of Eastern and Northern Bengal.

The up-stream traffic of the Matabangha was curiously small, barely one-third of the down-stream trade. The Lieutenant-Governor would be glad if the toll collector at Kishengunge could furnish in his next report his view of the reasons for this difference. Do the boats go back empty, or do they take return cargoes by some other route?

The two main articles of the up-stream traffic on the Matabangha were—

	Maunds.
Salt from Calcutta	460,000
Miscellaneous from Calcutta	241,000

The only mart to which any large consignment of up-stream goods was sent is Serajgunge, which took 179,000 maunds of salt.

20. The statements of the trade of the Calcutta canals give no details of the places of destination or shipment. This omission should be remedied in future returns; the Lieutenant-Governor does not wish details of the trade to and from all the smaller marts, but he wishes to know the transactions of the larger places, and to have the transactions of the smaller places grouped according to districts.

The four returns from the Calcutta canals give :—

- (1) The trade from Calcutta to the Eastern districts *via* the canals, which amounts to 1,179,725 maunds, or 43,256 tons, in all for the half-year. Of this total 924,669 maunds were salt.
- (2) The “trade to Behar and the North-Western Provinces.” The precise meaning of this heading should be made more clear; possibly the return shows all the trade which goes from the Sunderbuns and the Eastern districts to Western Bengal and places on the Hooghly above Calcutta. The total of the traffic shown in this return is 2,493,200 maunds, or 91,417 tons. Its principal items are—

	Maunds.
Rice	597,700
Pulse and other cereals	162,500
Oil-seeds	84,970
Jute	965,100
Miscellaneous	232,700
Firewood	368,500

- (3) The trade from the eastern districts with Calcutta and its environs. The total of this trade is 8,517,635 maunds, or 312,323 tons, for the half-year. More than half of this total, or 4,494,585 maunds, was firewood from the Sunderbuns. Of the rest the chief items were—

	Maunds.
Rice	1,191,620
Other cereals	260,225
Pulses, &c.	141,400
Oil-seeds	107,700
Jute	778,300
Cotton	90,770
Sugar	40,600
Hides	254,700
Miscellaneous	994,250

In the absence of information as to the places from which these Calcutta imports come, the figures are less instructive than they might otherwise be.

- (4) The trade “from Behar and the North-Western Provinces” to Calcutta and its environs through the Calcutta canals. The total of this return is 426,140 maunds, out of which 346,460 are shown as “Miscellaneous.” Without some account of the particular traffic shown in this table, its figures are not very intelligible.

21. • Until the East Indian and Eastern Bengal Railway traffic tables and the river and canal returns for a whole year are available,

it will not be possible to review the whole inward and outward trade of Calcutta by railways or by inland waters. Meanwhile some beginning towards ascertaining this trade has been made, and in another half-year or so the river and canal returns ought to be complete. The Lieutenant-Governor has submitted to the Government of India a statement of the traffic returns he would wish to receive and have published for general information regarding the East Indian Railway and Eastern Bengal and Mutlah Railways.

APPENDIX

Showing the amount of goods in standard maunds shipped at places above second-half of the

Places of shipment above Sahibganj	Rice.	Wheat	Other cereals.	Pulses and gram.	Oil-seeds.	Jute.	Cotton.	Sugar.	Tobacco.	Spices, pepper, &c.	Miscellaneous vegetable produce
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Cawnpore											
Allahabad				2,679	14,873		1,805	80		450	140
Muzamoor				550	22,595		37,889			125	8,350
Benares								150		50	1,515
Small places in the North-West Provinces above Benares ..				1,232	5,025		2,150			1,050	8,379
Berhampore, Jounpore district ..		748		3,158	57,085			97,792			1,270
Beithoria ditto ..					3,077			18,948			90
Bahia Ghazeeapore, Ghazeeapore district ..				7,117	17,568		406	82,641	125	380	27
Rajepore ditto ..				3,183	9,921			22		130	500
Ghazeeapore ..			1,400	1,338	6,278		1,289	18,906	343	42	825
Sandpore, Ghazeeapore district ..		800			1,700			500			
Moniar ditto ..					7,231			32,078		76	566
Goruckpore				1,010	31,111			2,899	40	66	79
Gola Gopalpore					58,700			2,556			568
Ooka, Goruckpore district ..					10,101			100			
Small places in the North-West Provinces below Benares ..		481	10	2,307	6,317	80	29	19,959	1,720	153	1,612
Small places in Oudh ..				10	14,558		200	1,000			874
Buxar, Sahabad district ..				79	11,200			3,243			18
Bahara, ditto ..		10	1,732	7,573	3,299			120			
Hardi Chuprah, ditto ..				6,615	3,500			179			
Sena ditto ..		528	1,125	13,614	550				133		
Solimpore, Sarun district ..					7,945			8,709			
Chupra, ditto ..		1,475	4,668	1,438	24,863			12,463	10		1,952
Ghosee, ditto ..			300					10,475	50		32
Revelganje ditto ..		1,126	9,119	5,164	423,236		31	5,116	216	290	6,010
Gundak Sahibganj, Tirhoot district ..					425			1,031			
Mozafferpore ditto ..		235		564	2,212			450	44	485	800
Durbhuaga ditto ..	25	100		1,098	52,917	30		4,744	355	60	926
Kamtoul ditto ..				800	6,343						
Poosa ditto ..											
Roshra ditto ..		562	50	2,076	332,076			8,263	4,818	132	5,775
Hajepore ditto ..				700	150		88				525
Somoshpore ditto ..		75		100	35,440				827		474
Dumapore, Patna district ..		853	5,370	17,807	6,093		100	1,270	744	2,578	7,904
Barru ditto ..		2,439		33,916	25,149			342	179		2,993
Burha ditto ..		1,146	1,255	25,518	2,879			600	273		100
Patna		2,131	7,741	36,316	183,506		63	6,049	10,369	13,319	14,150
Mokunah, Patna district ..	1,000	2,390		14,219	14,084						
Bullowah ditto ..											
Small places in the Patna division north of the Ganges ..		6,211	425	10,343	27,228			15,854	8,760	30	2,618
Small places in the Patna division south of the Ganges ..	50	1,134	3,722	16,878	10,587	30		1,944	534	249	1,545
Monghyr		74,955	3,155	68,250	72,713		17	1,064	2,715	552	3,843
Khaguriah, Monghyr district ..		40,953	300	2,740	112,585		5		1,278	25	754
Sirsa ditto ..				3,600	40,271				600		64
Surajgarh ditto ..		9,136	2,611	36,124	48,236			73			1,166
Small places in the district of Monchyr		12,134	1,325	4,489	15,111		625	800	3,562		2,160
Bhagulpore		44,130	11,717	8,281	27,121		1,101	1,013		125	7,912
Colgaon, Bhagulpore district ..		35,146	17,215	2,918	31,905				12		1,118
Bahia, Sahibganj ditto ..		290			51,289	121			290		125
Dumree ditto ..		6,882		3,158	9,445				250		40
Sibsonce ditto ..		24,942	1,365	2,712	2,319						3,092
Peer Pontee ditto ..	100	7,275	40	67	10,115						121

PIX No. 1.

Sahibgunge for despatch down the Ganges to places below the registering station during the year 1872.

She-Pals and other dyes	Timber.	Brass and brass-work.	Other metals.	Salt	Hides.	Ghee.	Silk and silk goods	Cotton goods	Gummes.	Miscellaneous	Saltpetre	Horns.	Total for second half-year.	Total for first half-year as per returns previously published.	Grand total for the whole year 1872
Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
900	808	..	366	..	126	21,327	12,183	12,728
..	160	..	45,305	..	533	110,507	52,004	162,511
..	1,218	..	12,919	..	..	15,880	4,275	20,158
280	42	..	54	23	1,079	1,000	..	20,815	63,101	20,811
..	907	..	..	161,404	224,505	..
..	5,264	..	..	27,009	10,026	37,035
..	14	365	..	311	..	360	..	20,964	700	..	140,378	31,548	171,925
..	1	3,477	..	252	..	8	..	..	604	..	18,106	..	1,810
..	1,175	..	83	..	187	..	31,313	..	..	63,182	19,429	182,660
..	600	..	..	..	39,340	..	32,940	..	..	42,940	42,940	42,940
..	165	..	4	2,802	1,292	2,902	..	47,116	16,082	6,391
..	40	..	..	..	53	..	..	35,301	..	35,319
..	31	..	..	..	200	..	..	61,755	11,784	73,530
..	10,201	..	10,201
..	1,400	268	46	447	36	10,062	1,198	40	46,195	66,216	112,411	
..	174	..	48	40	307	4,202	..	21,411	..	..	21,411
..	1,875	..	..	16,445	..	..	16,445
..	100	..	..	..	..	..	..	..	12,644	..	..	12,644
..	105	50	..	10,579	..	..	10,579
..	1,650	..	..	17,900	..	..	17,900
..	15	168	..	32	..	18,918	..	..	35,562	21,539	57,161	
..	85	..	..	..	90	25,038	..	73,092	10,771	83,863	
..	2,540	697	..	84	..	10,940	..	..	10,940	..	..	10,940
..	946	11,834	..	466,309	86,409	652,808	
..	100	12	..	3,916	1,852	..	..	..	31,230	..	..	32,686	15,491	48,177	
11,550	623	14,728	70	..	..	1,186	22,815	9	35,130	..	..	35,130
..	352	23,053	1,128	111,064	44,071	155,132	
..	7,805	..	..	14,098	..	..	14,098
6,120	3,521	..	..	50	16,331	..	16,381	..	..	16,381
..	2,075	..	3	..	..	1,854	5,435	..	371,582	29,137	400,719	
..	4,000	..	..	20	16,587	..	20,118	..	..	20,118
..	5,141	3,188	97	158	..	2,039	800	772	41,626	13,922	68,069	
140	705	184	534	74	..	372	2,385	..	68,755	16,344	85,099	
..	73	..	..	..	..	..	32,114	19,618	61,762	
906	38,123	..	721	18	133	11,067	1,802	..	326,574	97,190	423,724	
..	80	..	257	..	..	..	..	..	31,540	11,874	43,814	
..	21,044	..	21,044
560	580	..	..	7,188	1,388	260	50	25	2,369	27,863	18	111,562	49,675	161,232	
..	..	1	3	115	..	79	..	44	891	..	..	38,141	28,455	66,594	
..	..	5	..	1,536	..	2,135	..	..	4,823	1,766	..	237,559	53,016	290,575	
..	11	..	..	57	..	2,904	..	..	204	..	..	161,818	52,334	214,152	
..	30	..	..	7	..	..	49,238	..	..	49,238
..	3	..	..	..	..	1,218	..	..	915	..	..	99,484	19,506	118,984	
..	1,650	464	390	30	..	1,589	2,725	..	47,091	8,563	55,654	
..	93	20	..	673	..	..	102,160	44,789	146,955	
..	..	20	5	..	720	390	..	..	89,041	..	..	62,591	151,512	..	
..	40	..	..	54,372	..	..	19,815	44,839	109,102	
..	35	..	..	34,105	..	..	34,105
2	119	..	..	..	..	3,965	..	..	21,806	..	..	21,804

Places of shipment above Sahebgunge.	Rice.	Wheat.	Other cereals.	Pulses and gram.	Oil-seeds.	Jute.	Cotton.	Sugar.	Tobacco.	Spices, pepper, &c.	Miscellaneous vegetable produce.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Moorleegunge, Bhagulpore district	...	568	20	447	48,678	21	...	.....	.....	...	68
Small places in the district of											
Bhagulpore ... ..	...	12,360	921	3,311	16,375	105	...	414	824	...	7,140
Purneah	1,001	1,201	...	770	3,158	593	...	...	8,409	...	19
Carrucola, Purneah district ..	866	9,405	540	5,292	26,914	282	...	...	590	135	770
Nowabgunge ditto	4	670	...	342	15,392	...	...	...	...	...	81
Kosse, Sahebgunge ditto	1,932	707	15	474	25,468	1,290	...	...	...	...	245
Raneegunge ditto ... ..	...	1,000	...	...	14,556	204	...	...	4,781	...	300
Bhowanipore ditto	257	10,846	100	6,978	22,157	...	...	...	100	...	...
Kamalipore ditto ... ..	...	...	...	...	...	...	...	...	...	...	...
Small places in the district of											
Purneah	2,116	4,950	818	3,456	21,038	66	...	86	1,266	225	9,116
Sahebgunge	360	2,111	429	5,172	1,909	33	187	328	242	31	1,691
Small places in the district of											
Sonthal Pergunnahs	229	279	14	.....	265	..	...	125	2	...	4,492
Small places not assigned to any district	231	11,218	1,225	4,585	51,852	..	166	19,415	2,902	167	5,330
Total for the second half- year	8,182	333,883	85,672	374,253	2,109,078	2,858	46,203	381,501	58,212	20,950	114,829
Total for the first half-year as per returns previously published	12,046	97,372	22,632	74,013	470,424	18,090	31,037	163,543	49,579	11,813	125,537
Grand Total for the year 1872	20,228	431,255	108,304	448,276	2,579,502	20,948	77,240	545,044	107,791	32,763	239,866

* 44,091 maunds have been added on account of the weight

)IX No. 1.—(Continued).

Shell-lac and other dyes.	Timber.	Brass and brass-work.	Other metals.	Salt.	Hides.	Ghee.	Silk and silk goods.	Cotton goods.	Gunnes.	Miscellaneous.	Saltpetre.	Horns.	Total for second half-year.	Total for first half-year as per returns previously published.	Grand total for the whole year 1872.
Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
..	...	...	...	...	...	1,217	...	...	...	...	...	...	51,022	32,523	83,545
..	596	...	...	104	3,812	221	...	...	...	4,459	...	101	50,752	55,807	106,559
..	...	...	...	200	...	41	...	...	33,883	3	...	...	49,280	...	49,280
..	...	...	...	100	2,528	3	8	2	41,087	822	...	13	89,377	63,952	143,329
..	884	...	...	...	...	172	...	...	...	12	...	...	10,673	...	16,673
..	...	...	...	...	...	209	...	...	...	12	...	...	31,706	12,600	44,312
..	...	...	...	...	...	490	...	...	...	75	...	...	21,406	11,277	32,683
..	...	...	...	12	132	17	...	...	...	6	...	...	40,614	12,963	53,577
..	...	...	...	...	...	...	...	...	...	...	...	...	...	21,325	21,325
174	160	...	50	...	80	126	...	10	...	1,732	...	...	45,769	32,042	77,811
131	302	4	30	1,701	...	141	...	300	33	2,854	...	...	17,589	11,250	28,639
..	30	...	...	...	...	...	...	...	...	2,821	...	...	8,248	...	8,248
..	723	...	...	5,309	104	225	...	...	...	10,600	7,202	...	121,344	30,073	157,417
771	21,498	44	103	78,458	20,622	21,400	8	4,176	83,063	239,493	236,175	2,762	4,254,686	.....	.....
452	22,082	1,259	16,851	10,174	58,792	13,377	284	537	21,806	53,225	80,812	1,197	.....	*1,364,930	.....
223	43,580	1,303	16,054	88,632	88,414	35,177	292	4,713	104,869	292,718	322,987	3,959	...	1,364,930	5,619,616

des being under-estimated in the returns of the previous half-year.

APPE

*Showing the alleged destination of the goods which were carried down the Ganges by
standa,*

Destination below Sahibganje	Rice	Wheat	Other cereals	Pulse and gram	Oil-seeds	Jute	Cotton	Sugar	Tobacco	Spices and pepper	Miscellaneous vegetable products
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Old Sahibganje	831	642	5	80	470				70		11.4
Rajmahal				20	6,125				260		1.8
Sahibganje	5,913	2,009	701	3,561	23,125	749	76	1,310	759	4,411	4.5
Small places in the Sonthal Pergunahs	1,000		8	20		6					2.7
Maldah		1,319	6	10,610	8,765		1,174	78,471	578	1,124	6.9
Hayetpore, Maldah district	341	141	15	980	810	10	49	6,179		25	5
Small places in the district of Maldah	3	130		358	1,443		1,206	12,585	76	323	1.8
Small places in the district of Purneah	17	12	125	500	77		200	879		10	11
Small places in the districts of Dinagepore and Rungpore		159		10	450		2,534	129	66		3
Moorsheadabad		284	265	427	18,632		4,150	3,380	3,674	160	3.1
Juneypore, Moorsheadabad district				25	23,472		4,815	25,700	3,268	225	1.7
Jenungo ditto		400			63,309	614	7,388	6,244	5,588	865	1.3
Doolah ditto		4,701		3,606	22,065		10	30,400	14,915	600	4.0
Bhagyangola ditto											
Small places in the district of Moorsheadabad		157	100		5,131		4,121	5,933	3,326	32	1.7
Kooshten, Nuddea district											
Small places in the district of Nuddea											
Culina, Burdwan district		1,065		125	2,855		10	2,855		100	2
Bhadesur, Hooghly district		35,890	265	18,586	233,041	226			1,682		3.9
Small places in the districts of Hooghly, Burdwan, and Beerbhoom	4	3,371		1,501	10,012				3,285	94	9
Chandannagore, French possession in Bengal		1,700		525	190						3
Calcutta	50	274,026	83,580	206,009	1,671,009	1,250	10,205	118,975	13,585	8,254	45.0
Rampore Baulcah		258		1,760	3,174		90	48,840	1,050	397	5.1
Small places in the district of Jessore											1.0
Seragunj		40			500						
Small places between Rajshahye and Goulundo		100		250				70		5	
Dacca		6,471	512	28,946	1,836		6,109	6,287	655	4,566	6.9
Small places in the district of Dacca		50	20	1,360	769		1,479	932		3,220	2.2
Places in the Dacca division and Assam		64	40	1,401	6			371	529	238	4.6
Small places not assigned to any district	20	3		228	70	3	2,287	1,181	1,054		1.0
Total	8,182	333,883	85,672	374,253	2,109,078	2,858	46,203	381,501	58,212	20,865	114.5

* 44,094 maunds have been added on account of the weight

D I X N o. 2.

Sakebgunge during the second half of the year 1872. The quantities are expressed in maunds.

[illegible]

index being under-estimated in the returns of the previous half-year

APPEN

Showing the amount of goods in standard maunds shipped at places below Sahib

Places of shipment below Sahibgunge.	Rice.	Wheat.	Other cereals.	Pulses and gram.	Oil-seeds.	Jute.	Cotton.	Sugar.	Tobacco.	Spices, and pepper.	Miscellaneous vegetable produce.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Old Sahibgunge	1,133	12	570	243	281	209	1,534	312	6	20	2,006
Sahibgunge ... ..	...	...	...	...	...	...	...	...	...	...	...
Small places in the district of the	5,797	...	501	2,190	396	261	...	145	16	31	2,882
Southal Pergunna	130,776	195	133	7,758	1,219	110	...	30	48	100	611
Hayetpore, Maldah district ..	141,801	...	42	900	...	1,522	...	...	...	...	...
Moochia ditto	65,520	...	170	7,524	...	3,263	...	175	23	806	3,264
Maldah	14,518	...	...	86	320	10	...	...	...	25	...
Nowabgunge, Maldah district ...	42,597	...	...	350	...	...	...	...	...	...	...
Nethpore ditto	27,177	...	...	800	...	...	...	...	...	...	10
Rohumpore ditto	26,190	...	...	...	...	73	...	...	38	...	...
Rangung ditto	7,704	5	390	10,218	280	350	...	...	4	...	117
Small places in Maldah district	...	...	...	...	...	...	...	...	...	...	...
Ditto in the district of	3,017	326	17	2,128	1,545	36	...	...	73	...	312
Purneah	12,125	...	...	...	...	...	...	...	...	...	...
Assuuee, Dinagepore district ...	11,115	...	...	...	...	...	...	...	...	...	...
Champatah ditto	16,340	...	...	...	...	80	...	...	...	...	...
Dinagepore	31,247	...	...	...	...	30	...	...	...	...	...
Kalkamara, Dinagepore district ..	25,243	...	...	...	...	...	...	...	...	...	...
Nyabazaar ditto	11,685	...	...	690	...	...	...	...	...	...	...
Nowabunder ditto	25,814	...	...	...	...	...	...	...	...	...	...
Nowgong	1,510	...	...	...	...	...	...	...	...	...	...
Small places in Dinagepore district	1,205	...	...	...	...	...	...	...	...	...	...
Ditto in Rangung district ...	27,430	767	1,361	37,263	...	1,642	...	...	40	67	50
Doohani, Moorshedabad district ..	1,486	...	...	830	...	1,825	...	...	...	216	75
Jengunge ditto	35,139	200	662	7,247	...	306	...	...	...	...	71
Small places in Moorshedabad district	1,957	...	12	895	...	2	26	...	33	...	269
Small places in the Burdwan division	2,880	...	...	323	60	...	...	...	...	...	58
Small places in the Presidency division	4,600	...	950	225	...	190	...	...	...	181	360
Bhadressur	1,225	...	...	...	...	...	...	...	...	...	80
Chandernagore, French settlement	1,500	...	...	...	...	...	...	...	...	...	...
Calcutta	27,728	...	51	1,900	...	3,047	...	...	...	2,277	39,800
Rampur Bauleah	35,375	...	...	5,807	...	...	...	...	...	...	647
Gadagunge, Rajshahye district ...	...	...	...	...	...	...	...	...	...	...	...
Sindha, ditto	165,798	...	...	5,150	...	...	...	...	...	16	...
Small places in the Rajshahye division across the Ganges ...	8,086	...	...	1,050	...	12	...	...	...	122	3,755
Seragunge, Pubna district	13,969	...	...	300	...	...	...	...	...	...	20
Dacca	205,298	...	...	710	...	1,162	...	...	...	1,010	2,377
Small places in the district of Dacca	6,568	...	...	829	...	96	...	...	...	405	...
Ditto in the eastern districts	3,856	5	...	11	...	68	...	...	...	...	...
Ditto not assigned to any district	11,050	40	75	1,811	338	...	...	...	...	75	2,090
Total of the second half-year ...	1,168,830	1,550	4,964	97,848	4,349	14,643	1,560	662	281	5,754	59,782
Total of the first half of 1872 .	1,551,082	195	5,055	93,389	6,653	4,234	25,805	198	134	8,007	54,907
GRAND TOTAL OF THE YEAR 1872	2,752,921	1,743	10,019	191,237	11,002	18,877	27,455	860	415	13,851	114,689

DIX No. 3.

gunge for places above the registering station during the second half of the year 1872.

Shell-lac and other dyes.	Timber.	Brass and brass-work.	Other metals.	Salt.	Hides.	Silk goods and silk.	Cotton goods.	Gunnies.	Miscellaneous.	Betel-nut.	Total for the second half-year.	Total for the first half-year as far as previously published returns.	Total for the whole year.
Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
28	2,796	...	3	1,259	...	...	218	3,128	9,531	...	23,383	38,121	38,121
...	3,713	...	2	57	...	22	2	3,733	678	52	20,398	14,388	34,780
...	305	...	...	20	7	...	1	109	54	11	141,187	139,068	280,255
6	5	...	...	161	28	181,625	51	1,493	267,114	59,010	326,124
...	125	15,084	...	15,084
...	10	...	42,947	293,157	338,101
...	...	33	...	...	...	...	...	28,850	...	...	38,627	306,128	511,457
...	...	1	...	100	...	...	...	605	...	...	55,184	62,193	117,677
...	20,135	46,719	66,854
...	6	...	...	2,100	50	...	10,216	6,363	16,573
...	12,435	84,126	95,551
...	500	...	...	...	...	...	...	11,145	...	11,145
...	16,920	...	16,920
...	33,267	58,011	71,278
...	25,213	...	25,213
...	12,285	...	12,285
...	25,819	...	25,819
...	1,540	18,895	20,435
...	2,165	...	2,165
...	128	...	...	1,376	...	...	...	173	15	...	76,312	62,684	132,996
18	...	93	17	18,672	...	25	12	7,966	36	2,600	34,251	24,024	58,275
...	50	...	15	...	...	307	...	44,200	228,619	272,819
1	20	5,281	...	...	6	433	22	172	9,102	11,727	20,829
...	...	125	...	3,300	...	...	...	133	406	8	7,353	1,404	8,757
...	9,666	...	...	15,575	150	15,725
...	109,892	...	...	...	1,116	...	750	113,393	65,789	179,082
...	125	...	...	...	...	...	...	1,625	...	1,625
3,023	...	25	13,556	616,129	...	30	52	10,100	15,732	7,882	741,157	396,303	1,137,460
...	135	...	41,994	44,685	86,679
...	51,596	51,596
...	171,264	...	171,264
...	13,025	13,712	26,737
...	14,289	...	14,289
...	6	9,124	219,967	229,281	449,243
...	1,310	9,237	9,426	18,662
...	200	4,140	17,812	21,958
...	100	...	...	...	...	...	...	15,579	9,115	24,694
3,106	6,972	277	13,603	756,804	13	253	349	253,161	27,093	23,851	2,435,714	...	...
9,562	1,300	1,601	27,391	428,584	292	724	457	19,943	89,951	...	...	2,372,722	...
2,698	8,272	1,938	40,994	1,185,388	305	977	806	273,104	117,944	23,851	2,435,714	2,372,722	4,808,436

APPEN

Showing the alleged destination of goods carried up the Ganges past Sahchunge during

DESTINATION.	Rice and paddy	Wheat.	Other cereals.	Pulses and gram.	Oil-seeds.	Jute	Cotton.	Sugar	Tobacco.	Spices and pepper	Miscellaneous vegetable produce
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Allahabad											
Mirzapore	21,249			950		2,785				22	12,358
Benares	68,180	380	810	3,468		158					179
Small places in the N. W. P. above											
Ghazepore	2,380		950	1,010		80					2,580
Barley, Ghazepore district ..	10,119	75		7,901							30
Bellhara ditto	25,551			7,774							
Bajotpur ditto	13,371			1,010		86					
Ghazepore	46,819		110	162				175			
Bahia Ghazepore, Ghazepore dis-											
trict	146,034			671		72					2,555
Moniar ditto	64,085			7,465		5					
Small places in the districts of											
Ghazepore and Goruckpore ..	32,374		54	898	40	314					80
Gola Gopalpore, Goruckpore dis-											
trict	12,124	512	598	8,669		270				5	1,200
Small places in Oude	900			125							
Arrah											
Buxar											
Sahmport,	25		51								
Saran district	13,572			1,155							
Chuprah ditto	19,670										
Dorgunge ditto	8,440			2,325							
Mohamedpore ditto	70,923		215	2,905		110				74	72
Revelgunge ditto	4,699										
Cheerun Chuprah ditto	4,379		100	3,811		242					172
Mozulpore, Tihoot district ..	1,670		20	1,120		59				200	172
Durbhungah ditto	16,558		45	1,273		25				33	
Hazpore ditto	19,185	21		1,037							
Lahgunge ditto	6,015		62	10,278		1,302				20	25
Boshera ditto	4,651	125		4,551		200					
Small places in the Patna division											
north of the Ganges	23,903		16	3,982	20	371		125	38	86	
Patna	338,641		481	7,568		3,644				2,478	26,165
Sishon, Patna district											
Barri ditto	21,014		295	2,866		578					500
Dinapore ditto	69,150		8	816		1,141				273	
Mokameh ditto											
Small places in the Patna division											
south of the Ganges	24,498	30	40	448		157					111
Monghyr	2,479		75	2,452		459			53	521	1,117
Gomdipore, Monghyr district ..	9,950			200							
Khawarah ditto	1,740			838		350				200	771
Surojgurh ditto				200							1,180
Small places in the district of											
Monghyr	7,231		375	1,200		181					50
Bhagulpore	1,575			2,619		440				534	2,565
Bahia Sahchunge, Bhagulpore											
district	400			270					6		35
Colong ditto	3,814					41				84	326
Moorlegunge ditto	200			200			26		40	55	17
Small places in the district of											
Bhagulpore	5,757		45	808	110	22			3	66	2,683
Carragola	1,640		160	15		51	1,532	18	10	125	602
Koose Sahchunge	8		7	25				16		50	54
Small places in the district of											
Purneah	2,790	87	82	285	924	192	2	148		225	1,676
Sahchunge	17,091	320	353	3,483	3,955	1,328		30	131	320	2,203
Small places in the Sonthal Per-											
gunahs	2,575		12					150			71
Small places not assigned to any											
district	7,794			475							163
Total	1,158,839	1,550	4,964	97,848	4,319	14,643	1,560	662	281	5,754	69,782

LIX No. 4.

the second half of the year 1872. Quantities are expressed in standard maunds.

Sheet-ice and other dyes	Timber.	Brass and brass-work.	Other metals.	Salt	Hides and Horns.	Silk.	Cotton goods.	Gunnes.	Miscellaneous.	Beetling.	Total of the second half-year	Total of the first half-year as per returns previously published	Total of the whole year 1872
Lds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
680	...	...	...	300	...	...	...	3,733	8,212	2,905	54,191	28,350	28,350
	...	...	...	...	...	...	...	...	...	...	73,175	141,016	197,210
	...	...	...	6,855	...	...	...	...	650	1,175	8,825	...	8,825
	...	...	...	3,376	...	...	...	...	...	...	25,010	14,043	39,053
	...	...	...	3,550	...	...	...	...	...	...	33,125	27,750	60,855
	...	...	...	6,045	...	...	...	...	135	...	47,843	17,843	17,843
	...	...	...	5,138	...	...	...	...	...	...	51,261	148,464	199,715
22	...	...	400	10,130	...	...	6	...	412	250	156,059	165,841	321,880
	...	...	25	10,590	...	...	...	...	...	4	746,097	122,224	198,921
	...	...	...	11,269	...	...	...	...	1,215	...	35,118	...	35,118
	...	...	...	...	...	...	...	...	200	...	12,494	10,450	12,494
	...	...	...	15,820	...	...	...	...	50	100	16,046	14,689	16,780
	...	...	...	11,610	...	...	...	...	...	60	26,177	20,275	14,689
	...	...	...	250	...	...	...	...	...	...	19,670	21,462	36,274
	...	...	300	140,957	...	...	...	467	...	549	11,015	5,795	47,349
	...	...	...	5,800	...	...	...	...	...	100	24,118	44,880	52,895
	...	...	...	7,100	...	...	...	4,333	57	54	216,572	244,466	451,038
106	60	25	1,184	46,391	...	...	16	...	163	2,516	10,599	26,444	37,073
	...	...	...	1,400	...	...	...	...	...	...	20,118	51,982	72,140
	...	...	...	2,325	...	...	...	...	...	...	54,150	61,197	115,342
50	...	...	265	126,032	...	...	...	16,394	...	1,676	19,334	11,001	39,335
	...	...	...	11,280	...	...	...	6,225	...	...	22,508	22,508	22,508
	...	...	...	...	...	...	...	...	...	...	162,009	89,910	252,519
	...	...	...	...	...	...	...	...	...	...	27,632	21,544	48,576
175	10	...	9,856	35,147	...	...	8	...	34	616	64,356	53,346	117,672
	...	...	...	60,400	...	...	...	10,740	3,019	3,754	167,921	316,588	784,590
	...	...	...	...	...	...	...	...	...	...	...	13,119	13,119
848	...	...	...	6,675	...	...	...	1,830	550	100	37,408	54,346	90,754
	...	...	...	125	...	...	...	183	521	73	73,538	58,166	131,704
	...	...	...	...	...	...	...	...	...	...	...	13,381	13,381
78	...	...	...	8,168	...	...	12	...	15	25	33,504	52,756	66,260
	...	...	385	36,726	...	...	...	11,923	437	1,283	58,988	28,746	86,734
	...	...	...	...	...	...	...	...	...	...	10,150	...	10,150
	...	...	...	39,379	...	...	...	8,250	2	1,631	18,161	35,007	85,168
	...	...	...	9,769	...	...	...	8,833	...	...	11,982	...	11,982
50	1,300	33	449	1,500	...	...	15	2,633	...	500	10,986	13,129	24,115
	...	...	100	39,740	...	...	...	...	153	...	52,297	52,528	104,825
38	...	73	13	18,804	...	...	12	1,440	11	1,663	22,843	28,525	51,366
	...	...	...	7,800	...	...	...	...	...	...	12,126	...	12,126
	42	...	7	20,452	...	...	64	1,202	5	1,235	2,505	16,608	10,113

15	220	...	30	5,380	...	13	...	307	376	400	16,290	19,627	35,917
10	726	...	54	6,786	...	68	18	1,178	7,228	35	20,245	55,530	75,777
	16	20	...	8,589	...	16	...	233	...	1,055	10,099	...	10,099
54	4,365	125	393	22,186	...	5	165	1,008	1,598	1,404	36,904	25,218	62,122
	...	1	...	1,020	13	152	14	182,039	250	288	212,991	...	212,991
	...	...	...	150	...	...	...	...	6	...	2,963	...	2,963
	19	...	...	...	...	...	...	...	...	...	...	...	...
	144	...	42	1,790	...	...	4	...	815	...	11,227	18,561	29,788
4,066	6,972	277	13,603	756,804	13	253	349	253,161	27,094	23,851	2,435,714	2,553,912	4,989,626

APPENDIX No. 5.

River Traffic on the Ganges by the India General Steam Navigation Company's Steamers during the second half of the year 1872.

DOWNWARD CARGO FROM PLACES ABOVE SAHEBGUNGE.

PLACE OF SHIPMENT.	Wheat and other grains.	Seeds.	Cotton.	Shell-lac and dyes.	Hides and horns.	Saltpetre.	Miscellaneous.	Total for the second half-year.	Total for first half-year.	Total for the year 1872
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Allahabad	2,318	..	..	12,124	..	1,084	8,526	50	8,576
Muzapore	31,160	1,180	1,374	..	1,197	429	35,340	22,860	58,200
Benares	10	10	..	10
Ghazecapore	630	229	..	530	..	14	1,403	246	1,649
Revelgunge	2,156	245	2,401
Dinnapore	587	..	204	..	14	805	3,096	7,131
Patna	3,531	493	..	..	..	15	4,039	297	4,336
Barh	1,280	1,280
Monkhyr	3,825	3,825
Lukeypore	1,628	1,628
Caragola
Total of second half-year ..	1,206	37,639	2,489	1,374	2,858	1,197	1,566	50,123	35,738	85,861
Total of first half-year	23,352	9,181	62	..	206	1,729	..	..	..
Grand total of the year 1872 ..	1,206	60,991	11,672	1,436	2,858	1,403	6,295	50,123	35,738	85,861

UPWARD CARGO FROM PLACES BELOW SAHEBGUNGE.

PLACE OF DESTINATION.	Cocoanuts.	Metals.	Salt.	Miscellaneous.	Total for the second half-year.	Total for first half-year.	Total for the year 1872
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Allahabad	607	17,423	..	10,092	28,122	23,681	51,803
Muzapore	2,122	31,233	..	4,482	37,837	23,786	61,623
Benares .. ..	..	..	..	394	394	240	634
Ghazecapore .. ..	..	..	..	374	374	462	836
Revelgunge .. ..	..	536	6,500	665	7,701	23,896	31,597
Dinnapore .. ..	..	125	..	2,313	2,438	1,170	3,608
Patna .. ..	..	1,342	400	1,892	3,634	7,127	10,761
Bulowah .. ..	..	1,560	..	207	1,767	2,097	3,864
Monkhyr .. ..	..	1,917	..	5,479	7,396	2,731	10,127
Sooltangunge .. ..	..	..	..	..	..	405	405
Rajnollee Ghat .. ..	..	..	..	..	..	381	381
Total of second half-year ..	2,729	54,136	6,900	25,898	89,663	..	..
Total of first half-year ..	2,244	38,619	28,826	16,727	..	86,146	..
Grand total for the year 1872 ..	4,973	92,755	35,726	42,625	89,663	86,146	175,809

THE APPOINTMENT OF A MANAGING REPRESENTATIVE BY A PLURALITY OF CO-SHARING LANDLORDS.

The Appointment of a Managing Representative by a Plurality of Co-sharing Landlords.

Calcutta, the 28th August 1873.

RESOLUTION.—By the Government of Bengal, Revenue Department.

READ—

Chapter XVII. of the Board of Revenue's memorandum on the land revenue administration of the Lower Provinces of Bengal.

Letter to Government of India, No. 1664, dated 2nd July 1873, reporting on the petition of certain inhabitants of Hylee, complaining of the oppression of zemindars.

Letter from Government of India in reply, No. 621, dated 30th July, concurring in the views expressed by the Lieutenant-Governor in the above letter.

1. THE Board of Revenue in their Administration Report for 1870-71, in describing the land tenures of Bengal, mentioned that as a consequence of the practice of proprietors sub-letting separately undivided shares of the whole superior tenure, each tenant had now very commonly to pay his rents to "two or many more than two masters."

2. The hardships and harassment to which the practice of share-holders collecting separately subjects the tenant, had frequently come under the Lieutenant-Governor's notice in different shapes; he therefore requested the Board to consider whether some remedy should not be applied by legislation, suggesting the possibility of reverting to the rule of the permanent settlement quoted in the margin, under which the proprietors of a joint undivided estate were required to elect a sarberakar or manager, who should have the exclusive management of their lands during the continuance of his appointment.

(Regulation VIII. of 1793, sections 23 and 25)

23. Where more proprietors than one possess an undivided estate, and the whole of them be not within the description of disqualified landholders specified in section 20 the settlement is to be made with them jointly, and they are to be required to elect a sarberakar or manager who shall have the exclusive management of their lands during the continuance of his appointment. The determination of the majority of the proprietors, or of the majority of those present, in the event of the absence of any, is to be binding on the remainder in the choice of a manager; and when the votes of the proprietors are equal, the election of the manager is to be determined by the greater interest of the proprietors in the property. If many case the interest also be equal, the manager is to be appointed by the Board of Revenue.

25. If the joint proprietors of undivided estates should neglect to elect a sarberakar on the requisition of the collector of the revenue of the zillah in which such estates may be situated, the latter is authorized to nominate a manager for the approbation of the Board of Revenue, which manager, when confirmed by them, shall have the exclusive management as long as it may be thought advisable to continue him. The expense of the manager, as well as the responsibility for the public revenue, resting nevertheless with the proprietors

3. On this the Board consulted the Commissioners and local officers, and the result is embodied in chapter XVII. of the Board's memorandum on the revenue administration of the Lower Provinces of Bengal recently printed. Local officers were "very unanimous in deploring the evils and hardships of the present system," but were not generally hopeful as to the probable result of the remedy proposed, or of any other remedy

4. The reports of the local officers certainly show that extreme hardship, injustice, and wrong to the uninfluential holders of small fractional shares in realizing, as well as to the tenants in paying, their rents is very often the result of the existing state of things, and the same thing is made evident by individual instances which have come prominently to light from time to time in different parts of the country.

5. The Commissioner of Dacca observes that "at present much money is wasted by each petty sharer having a gomashita, who has his pickings both from ryot and landlord."

Opinions of local officers.

6. The Collector of Backergunge—that "the tenants who pay to three or four shareholders are undoubtedly often subjected to serious inconvenience, and the hardship is equally great on the other side. Indeed, the person who is probably most to be pitied in the transaction is the small shareholder, especially if such person happens to be a woman or a minor. It is only too common for the latter to be practically dispossessed by the more powerful co-sharers who persuade or cozen the tenants into acknowledging no landlord but themselves."

The Commissioner of the Presidency Division observes that "there can be but one opinion as to the great difficulties in the way of tenants in such a predicament. The hardship is unquestionably much felt from one end of the country to the other, and I think that a legal remedy should be applied to an evil that affects the great bulk of the rural population."

In the Behar districts the evil is not so common. A joint representative is often appointed to deal with the ryots, while in other cases the putwaree acts as collector for the shareholders jointly. In fact, in this, as in other things, Behar resembles the North-Western Provinces much more than Bengal. Still, the Commissioner has known instances in which, "owing to quarrels among shareholders, ryots have not been allowed to cut the dhan, and ryots and maliks shares have thus altogether gone to destruction. In Sarun, tenants under joint coparceners are put to much trouble in getting receipts and in recovering amounts overpaid. The Commissioner is of opinion that the evil is very considerable, and is not only a source of vexation and harassment to the ryot, but of serious loss, inasmuch as it multiplies the number of omlahs and underlings whom he has to fee."

7. Other officers represent the difficulties to which the ryots are subjected when a dispute occurs among the joint-shareholders to whom he has to pay his rent, or when a new proprietor of a fractional share comes in and endeavours to raise the rents payable on account of his share. The extortion to which the ryots are subjected by collecting establishments is an admitted grievance, and that wrong is intensified to an intolerable degree when he has to satisfy the illicit demands of the servants, not of one landlord but of many, for the gratuities or presents, which are sometimes said to be given by the ryots of their own free will.

8. The Commissioner of Orissa goes fully into the subject, and his remarks are here reproduced:—

"In my opinion payment of rent by tenants to several fractional owners separately is productive of the greatest confusion, annoyance, and injury. An estate paying revenue of Rs. 300 often has as many

as 25 or 30 proprietors, whose shares are in some cases so minute that they can only be described by fractions of a cowree. The ryots are generally an uncomplaining class, but cases have come to light in which they have suffered severely from this multiplicity of zemindars. On this subject the Collector of Cuttack reports as follows:—

“ In the whole circumstances regulating the position of landlord and tenant, there is nothing so detrimental, I might say ruinous, to the ryot as the number of persons who claim to exercise the power of landlord over him. As a rule, in this district the shareholders in a joint undivided property have no common manager or tehsildar, each collects his own fractional share of the rent separately. The consequences to the ryot in an estate where there are ten or fifteen shareholders, each with his own set of omlah, demanding his own particular *dustury*, are too plain to call for explanation; but when the road cess comes to be collected the consequences will be far more injurious than they are now. The maximum cess payable by ryots is a pie in every rupee of rent, but thousands of instances will occur in which the whole rent to be received by any one shareholder will not exceed a few annas. The portion of cess due on this could not well be adjusted, and the probability is that when the whole amount is made up the ryot will find that he has paid three or four times more than he ought to have done. I have no hesitation in repeating here my conviction that unless the appointment of a common manager in joint estates is enforced, the ryots can never be placed in a fair position, and nothing, moreover, can be more detrimental to the proper management of an estate than a lot of shareholders acting independently, and squabbling over the plunder. That there is a marvellous want of unanimity I knew before, and my opinion has been only too well confirmed by what has transpired in working the Cess Act.”

9. In his Land Revenue Report for the year 1872-73, the Commissioner of Burdwan writes to the Board of Revenue:—

Particular instances.

“As a rule, the principal sharers in joint estates have each their mal-cutcherry and separate collecting agency. This is harassing to the tenants, but it is an old established practice in the district. The different sharers do not in all cases collect rents at the same rate. Of two 8-anna sharers one may realize much more than the other. It is stated that a certain powerful zemindar in the Hooghly district with a four-fifth share realizes seven times as much rent as the one-fifth shareholder.”

In his report on the land revenue administration of the Cooch Behar Division in 1871-72, the Commissioner gives the following account of a complaint which was made to Colonel Haughton during his tour:—

“A Garo talookdar, whose tenure, from the evidence produced, was in existence prior to the decennial settlement, and whose ancestors came forward and made the same complaint to Mr. Elliot, the Commissioner deputed to settle the disputes between the zemindars of Sherepore and the Garos, made the following statement:—That the pergunnah having been divided amongst thirteen recorded sharers, and a number of unrecorded sharers, it has become a matter of impossibility for him to pay his rent. Each sharer residing at a variety of distances

required his rent to be conveyed to his house, and to each he has to pay his quota of abwabs. It so happens that when two separate sharers of the same house disagree, he is often obliged to dance attendance upon them till their dispute is settled. Again, a sharer dying, the tenant has either to wait till the heir takes his certificate of administration, or to pay at the risk of being obliged to pay again; the matter has become intolerable to the extreme, and a better instance for legislative enactment cannot be given, if it be the intention of Government to intercede on behalf of these oppressed tenants."

10. If a talookdar finds himself in this position, the still greater difficulties with which an ordinary ryot is beset under similar circumstances can be easily understood. The Commissioner further writes:—

"By this difficulty, not only the tenants suffer, but the zemindars themselves are great losers. The tenant being extorted or harassed by one sharer, delays to pay his rent to another, and in this way another sharer becomes a loser."

11. Again, during the recent disturbances in Pubna the same difficulty cropped up as one leading to much agrarian discord. The village in which the feeling was most bitter, and most violence was committed, was one in which a dispute existed between the shareholders. One of them had sub-let his share to a man who was opposed by the others, and the acts of violence which occurred were supposed to have been fomented by the discordant shareholders.

12. In September 1872 a petition was presented to the Governor-General in Council by certain ryots of Hijlee in the Midnapore district, containing the following complaint among others:—

"Each zemindar collects revenue from each ryot according to his own share of the district, and your Excellency's petitioners are therefore subject to constant visitations from their peons, and the consequent annoyances and oppression. They are also subject to pay illegal cesses, which it is customary with zemindars to exact from ryots, and your Excellency can therefore imagine the hardships under which your Excellency's petitioners are laboring"; and they prayed that, as a remedy for these hardships, orders might be given for the partition of the district among the zemindars according to their respective shares, or else that it should be placed "under khas management or izaradars appointed by Government," which would remove the "intolerable grievances" under which the petitioners were laboring. In reporting on this petition the Commissioner of Burdwan wrote: "The Mujnamootah estate, of which they are residents, is held in six different shares, and each shareholder has in his employ a distinct collecting agency, whose separate visitations for the purpose of collecting the rents is probably a source of annoyance to the ryots, but there is nothing illegal in the proceeding. The prayer of the petitioners for the partition of the estate into different shares is inadmissible, as there is no law to compel the adoption of such a course on the part of the owners.

13. In submitting a report on the petition, the Lieutenant-Governor observed that the evil complained of is a "most cruel wrong," and expressed an opinion that legislation should be resorted to, "so as to provide against a number of

Opinion of the Governor-General in Council.

joint proprietors in an estate, separately and individually harassing the tenants for their dues." The Governor-General in Council fully approved of the views thus expressed by the Lieutenant-Governor in submitting this report, and His Excellency in Council has directed that, before legislating on the subject, "the necessity of remedying the evil complained of may be pointed out to the heads of the zemindari interest, and their opinion asked as to the measures which will secure the object, with the least disturbance of the rights of the several shareholders on a joint estate."

14. That the Government is thoroughly justified in insisting on the appointment of representatives of the shareholders, if that course should appear to be for the benefit of the community at large, is evident from the fact that a provision requiring them to do this was among the fundamental provisions of the permanent settlement. The

original law on the subject is transcribed in paragraph 2 of this resolution.
 Sec. 23, Reg. VIII. of 1793.

It may be added that a provision of this kind has been carried into full effect, and is now in universal use in the North-Western Provinces, Oude, and Punjab, where without it society would fall to pieces. The effect of the Hindoo and Mahomedan law of inheritance, and other causes are such that there are very few estates held by single owners either in Bengal or in other provinces. At the same time it must be admitted that, as things are now situated in Bengal, there are considerable difficulties in the way. This was felt as early as 1805, when, at the instance of many landholders, the provision above quoted was repealed.

15. Looking at the relations which so often exist between co-parceners in Bengal, it is to be expected that it may often be found difficult for them to agree in selecting one of their number or any common agent to deal with their tenants on behalf of all. The preamble to Regulation XVII. of 1805, which regulation repealed the rules of the settlement law requiring the appointment of a joint manager, sets forth "the reluctance manifested generally by the proprietors to elect a manager under those rules"; but in the correspondence which led to the passing of the repealing regulation, the question is viewed from the zemindars' side only—its bearing on the tenants is not even alluded to.

It is only necessary now to say that, on a full consideration of the question, the Governor-General in Council, as well as the Government of Bengal, has been convinced that justice is not done to all classes under the present system, and that a remedy must be devised. It remains to devise the best form of remedy.

16. It is to be observed that the appointment of a joint manager to represent all interests is by no means a new or unusual thing even in these provinces. In Burdwan it is reported that in many joint estates or talooks "there is a common agent or gomashita who makes the collections for all the co-parceners, and pays to each his share of the rent, although in large estates or talooks having several shareholders each of them employs a separate naib or agent, and the ryots have to pay rents to the several agents." In Dinagapore where there is no dispute, the ryots "generally pay in

lump sums to the putwarie of the village, whose business is to apportion the amount to the shareholders."

In Maldah and Pubna the proprietors of small estates generally employ a joint collecting establishment, although it is not so in large estates. In the districts of Behar, the cases in which the ryot has to pay separately to several proprietors are not so common as in Bengal. Although small estates are owned jointly by numerous co-parceners, some arrangement is generally made by which the ryot has to deal with one person only; sometimes he pays in a lump sum to the putwarie, who distributes the collections to the shareholders; sometimes to a joint tehsildar. In some villages of Gya, as all the numerous co-proprietors "are related to each other, they appoint one from amongst themselves to collect from the tenants." In the Bhagulpore division one shareholder sometimes manages for all.

17. It may then be said that (except on large estates) so long as

Review of the position.

the co-parceners are at one, it is generally found convenient for all parties that the ryots should pay their rents to one representative of the proprietors, and some arrangement is often made accordingly. Indeed the inconvenience of collecting their fractional shares of rent from joint ryots is so much felt by proprietors, that it is not an uncommon thing for them to make an amicable division of the ryots of their estate, so that each proprietor shall collect the whole amount of rent payable by a certain number of the ryots of the estate.

The cases in which the evils of separate collection of fractional shares of rent are most felt may be said to be—

- I. Those in which disputes have arisen among the co-parceners; and
- II. Those of large estates or tenures, some of the proprietors of which are presumably men with considerable local power influence.

Whatever may be the causes which operate to prevent these larger shareholders from adopting the course of appointing joint agents, which is found convenient by smaller landlords, it is evident that both in all cases of disputes and in the case of large shareholders who collect separately, the ryots suffer, and in neither case are they in any degree to blame. In the latter case the petty shareholders, if any, probably suffer also, without any fault of their own.

18. It is for the protection of the interests of these weaker parties that interference is called for; and such interference should be limited to the cases in which it is really necessary. The necessary protection might best be given perhaps in the shape of a law, similar to the original law of 1793, giving authority to the district officer, upon application made by the tenants of any estate, or otherwise, when he finds such a measure necessary for the peace of the district and the due protection of the tenures, to call upon all persons (whatever may be the degree of their tenures) who are entitled to collect fractional shares of rent direct from the cultivating ryots, to appoint one of their own number to represent the whole body in their dealings with the ryots; or to appoint a joint agent for that purpose. In case of default to nominate jointly, it seems unavoidable to vest the powers of appointing a manager with the collector. The power would only be used where it might be

necessary from the circumstances of the estate, and the Lieutenant-Governor believes that the very knowledge that it lay in the hand of the collectors would often go far to check those abuses of private management which have led to the present discussion.

It will be a question whether, in order to meet such cases as those of the talookdar in Cooch Behar, which is given above, the proposed authority should not be extended somewhat higher, the collector being empowered to call on the holders of superior tenures to nominate a joint agent to deal with the proprietors of subordinate tenures.

19. In connection with this subject, it appears to the Lieutenant-Governor possible that if the system of appointing joint managers were more generally adopted many of those undoubted cases of hardship might be avoided in which estates are brought to sale for arrears of revenue, caused by the default of one out of several shareholders. In some cases doubtless such defaults are intentionally committed, in order to allow the estate to be brought to sale for the purposes of the defaulting party; in other instances, the default occurs through some *bona fide* misunderstanding or mistake, which would be remedied if the collector could only communicate specially with all the parties concerned. But as things now stand it would not be possible to require the collector by law to make such special communications in every case of default; for it would often be practically impossible for him to find out who all the actual joint proprietors are, many of their interests being represented in his registers by the names of persons who have been long dead, or who have alienated their shares.

Where there is a joint manager representing all, no such difficulties could occur, and it might be a matter for consideration whether the severity of the present sale laws could be relaxed.

20. The Lieutenant-Governor now desires, in accordance with the suggestion of the Government of India, to invite the views of the representatives of the landed interest, "as to the measures which will secure the object, with the least disturbance of the rights of several shareholders on a joint estate," and which would generally be open to the least objection; and he accordingly directs that copies of this resolution be sent to the various societies in Calcutta and elsewhere, which are accustomed to promote the interests of landholders and others connected with the land, and that it be translated, and copies in English and vernacular be sent to the local officers for distribution to intelligent persons among the zemindars, sub-holders, and ryots. Also that it be published in the supplement to the *Gazette*, and that suggestions on the question be invited.

ECONOMIC MUSEUM.

Economic Museum.

Calcutta, the 7th April 1874.

RESOLUTION—By the Government of Bengal, Statistical Department.

READ—

Circular No. 37, dated 6th December 1872, concerning the preparation of returns on the food-grains of Bengal.

Memorandum [No. 42, dated 31st January 1873] on the products of Furrcepore, by Dr. B. N. Bose.

Suggestions by Mr. Justice Phear on the formation of an Economic Museum Calcutta, 1873.

Suggestions by Mr. Heeley, Inspector-General of Jails, on the same subject, dated 27th February 1873.

Suggestions by Colonel Hyde, Mint-Master, Calcutta, on the same subject, dated 26th July 1873.

THE Lieutenant-Governor has long felt the want of a *practical* collection of the products of Bengal, an Economic Museum in fact, in which all the natural and industrial products of the province might be brought together, identified, and compared, for the purpose of ascertaining all that is really known concerning them, and then circulating this information in the most practical and useful shape that can be devised. Local officers must be able to recognize with precision the various grains and other products of their districts, to enable them to deal with agricultural statistics in an intelligent manner. At present it is almost ludicrous to observe, in moving from district to district, how often the same things are called by different names, and different things by the same names; and how extremely difficult it is to recognize the identity even of the commonest products. The Lieutenant-Governor is convinced that the very first step towards the attainment of exact and comprehensive knowledge of the agriculture and other industries of the province is to bring together and classify our raw products, and, impressed with this conviction, he has for some time past contemplated the establishment of something in the nature of an economic museum.

To be of practical use, however, the museum must be not merely a collection of the raw and manufactured products, &c., of Bengal, but must also afford all requisite descriptive information with regard to each article. When the museum is complete, an enquirer ought to be able not only to find in its cases a specimen of the particular product or article which he desires to inspect, but to obtain—if we suppose the object of his visit to be a particular grain—an account of the places in which it grows, and the names by which it goes; if coal, he would find the principal coals produced in these provinces represented, their several qualities and characteristics, the accessibility of the mines, the means of transport, &c. And similarly with regard to other food-products, seeds, fibres, minerals, and manufactures.

A careful and well classified selection, therefore, of specimens of all the products of the country, with printed papers telling all that is as yet known concerning every article of importance, will be the primary object of the museum, a work which, His Honor believes, will bear fruit out of all proportion to the labor of its preparation. There is a tendency in all such institutions to degenerate into a curiosity shop. His Honor has no fear that a committee judiciously selected would permit anything of the kind; they would keep steadily in view the purpose of the institution, which is to trace every commodity in its successive stages of production and manufacture, taking stock of the actual resources of the province, and of its industrial developments.

One of the great wants of trade generally in India is the means of utilizing the valuable information that has been collected regarding the productions of the country, and that lies buried in the records of the Government, or, almost equally inaccessible, in the scientific libraries and museums at the presidency towns. The results of the past labors and researches of the eminent men who have been the ornaments of the Indian services, and other remarkable men, should, the Lieutenant-Governor feels, if possible, be edited in a popular form. He would like to see the results of these valuable labors gathered by ourselves, adding thereto our own systematic collection of information, and putting the whole in an accessible form in the hands of the public. The Lieutenant-Governor believes that an economic museum, well administered, would, within a comparatively short period, provide the public with the means of ascertaining, by a simple reference thereto, all that is known or is recorded in the several departments of the Government concerning the products and industries of the country.

Dr. Forbes Waston's plan for an Industrial Survey of India, sent out by the Secretary of State, is the development of a plan which the Lieutenant-Governor is inclined to adopt, and which he has been anxious to begin. He found, however, that while we might rapidly get together from our various provinces many specimens, the first necessity was to prepare a building for them; and after much search he was fortunate enough to find a public building in Dalhousie Square, which, by adaptation, has been made admirably to suit the purpose.

He had hoped that by this time the museum would have been well started, but the famine has interfered and prevented our doing anything which would involve large calls on the district officers. The building being however ready, a few materials available, and many of our districts being now freed from immediate fear of famine, the Lieutenant-Governor is unwilling to leave the country without making a small commencement of the undertaking.

Mr. Justice Phear has kindly assisted the Lieutenant-Governor with some excellent suggestions, also Colonel Hyde, the Mint-Master; and Mr. Heeley, *c.s.*, was good enough, sometime since, to undertake a collection and classification of the food-grains of Bengal. The three gentlemen thus named consented, at the Lieutenant-Governor's request, to form themselves into an informal committee, in order to formulate the plans necessary to make a small commencement of the undertaking; and they have made some suggestions which the Lieutenant-Governor most readily adopts.

In accordance with these suggestions the Lieutenant-Governor is pleased to appoint the following gentlemen to form a Central Committee to manage the museum, with powers to appoint an Honorary Secretary and an establishment at a cost not exceeding Rs. 60 per mensem, with Rs. 20 per mensem for contingencies :—

1. Hon'ble Mr. Justice Phear.
2. Colonel H. Hyde, R.E.
3. W. L. Heeley, Esq., Inspector-General of Jails.
4. J. R. Bullen-Smith, Esq.
5. H. B. Medlicott, Esq., Geological Survey.
6. Dr. G. King, Royal Botanical Garden.
7. Dr. W. Schlich, Conservator of Forests.
8. J. Geoghegan, Esq., Board of Revenue.
9. Robert Knight, Esq., Bengal Secretariat.
10. Dr. C. B. Clarke, Education Department.
11. Dr. Kanye Lall Dé.

The work of the Central Committee appointed by this resolution will be the nominating, advising, and directing of local committees; the selecting and arranging of the samples and models received; and the composing of the descriptive catalogue from the materials sent in by the local committees and from information obtained by the members of the Central Committee itself or found already existing in a written form. This work will probably have to be done by allotment among sub-committees and individual members. It is necessary, therefore, that the committee should comprehend as many gentlemen as possible possessed of the requisite scientific attainments, who would take interest in the objects of the museum, and would consent to serve upon the committee. The Secretary would require to be paid, and it is proposed to make a small commencement with a salary of Rs. 150 per mensem, which sum is accordingly sanctioned.

The appointment of local committees in the districts will be made by the Central Committee in communication with the Government and the Commissioners of Division, and that committee will be good enough to advise the Government as to the constitution they propose to give these bodies; but the Lieutenant-Governor feels keenly that, let their constitution be what it may, their efficiency will depend upon the interest which the district officers of the Government take in the work. He would remind these gentlemen that we must have their active sympathy in this effort to stimulate the industry and promote the well-being of the people committed to their care. The Lieutenant-Governor knows how real that sympathy happily is in the great majority of our officers, and he feels sure that he may count upon it in the present case. What we want from the districts are not things ornamental or curious, still less specimens of fine art, but specimens of the ordinary products of agriculture, its minerals, its manufactures, and its forests and wastes. Bengal teems with undeveloped wealth, and we must have an effective inventory of our natural advantages and possessions.

